A STUDY ON THE PREVALENCE OF ABNORMAL CERVICAL CYTOLOGY USING PAP SMEAR AS A SCREENING PROCEDURE AMONG THE ATTENDEES OF FEMALE STD OPD

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(BRANCH XX)

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CERTIFICATE

Certified that this dissertation titled " **A STUDY ON THE PREVALENCE OF ABNORMAL CERVICAL CYTOLOGY USING PAP SMEAR AS SCREENING PROCEDURE AMONG THE ATTENDEES OF FEMALE STD OPD** " is a bonafide work done by Dr.K.DEEPA , Post graduate student of the Department of Dermatology, Venereology and Leprosy, Madras Medical College, Chennai – 3, during the academic year 2010 – 2013. This work has not previously formed the basis for the award of any degree.

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DECLARATION

I solemnly declare that the dissertation entitled **"A STUDY ON THE PREVALENCE OF ABNORMAL CERVICAL CYTOLOGY USING PAP SMEAR AS SCREENING PROCEDURE AMONG THE ATTENDEES OF FEMALE STD OPD"** is a bonafide work done by me at Madras Medical College during 2010-2013 under the guidance and supervision of **Prof.Dr.V.SUDHA, MD, DV, DD.,** Director and Professor, Institute of Venereology and **Prof.Dr.K.VENKATESWARAN,M.D,** Addl.Professor, Institute of Venereology, Madras Medical College, Chennai-600003.

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ABBREVIATIONS

Pap Smear	:	Papanicolaou Smear
HPV	:	Human Papilloma virus
DNA	:	Deoxy Ribonucleic Acid
STD	:	Sexually Transmitted Disease
HIV	:	Human Immuno Deficiency Virus
ICC	:	Invasive Cervical Cancer
CIN	:	Cervical Intra epithelial lesion
HSV	:	Herpes simplex virus
ASC	:	Atypical Squamous cell
Ascus	:	Atypical squamous Cells of Undetermined significance
LSIL	:	Low grade squamous Intra epithelial lesion
HSIL	:	High Grade squamous Intra epithelial lesion

VDRL	:	Venereal Disease research Laboratory
PCR	:	Polymerase Chain reaction
RB gene	:	Retino Blastoma gene
LBC	:	Liquid based cytology
ACOG	:	Americal congress of Obstetrics and Gynaecology.
CSWs	:	Commercial Sex Workers

CONTENTS

INRODUCTION

Globally, Sexually transmitted infections are a major cause of morbidity. The World Health Organization recommends the use of term "Sexually transmitted infections"(STI) instead of " sexually transmitted diseases" (STD)[1] because, sexually transmitted infections may remain symptomless without resulting in disease or they may also end in abortive form[1].

Human Papilloma Virus (HPV) is one of the most common cause of STI's in the world. Genital HPV, the known cause of cervical cancer is a very common sexually transmitted disease. Upto 70% of genital Human Papilloma Virus (HPV) infections are subclinical. This Sexually Transmitted Infection, HPV plays a pivotal role in the development of squamous cell carcinoma and adenocarcinoma of genital tract. In latent infections, the HPV viral DNA can be isolated with no morphological lesions. Genital HPV infection can be detected by clinical examination, histology, cytology or molecular analysis. Genital HPV infection, which is often subclinical may be detected during cervical smear test ie PAP smear

EPIDEMIOLOGY

The estimated prevalence and annual incidence of treatable STDs by 1999 in South and Southeast Asia is 47 million. Infected individuals per thousand populations are 49.5. The estimated new incidence of infection per year is 150 million [1,2] .

THE BURDEN OF THE DISEASE

Cervical cancer ranks third, among the most common cancer in women world wide. The burden of the disease is more in the developing countries.

India has a population of 366,580 lakhs. Cervical cancer is the most common malignancy among women in India. The age group at the risk of developing carcinoma cervix is 15 years and above. In India, it is stated that cervical carcinoma has been diagnosed in 134420 women every year and every year 72825 die due to the disease[2]. Cervical HPV infection in general population are estimated to be about 7. 9%. HPVs type 16 and 18 are attributed to 82.5% of all invasive cervical cancer. From statistics it is estimated that the number of cervical cancer in 2025 will be 203747 and death will be 1,15,171.For one lakh population , the crude incidence rate is 23.5[2].

The burden of the disease is region specific the high rates of cervical cancer in developing countries are due to associated risk factors like, high rate of fertility, early age of birth of first child, inadequate knowledge and awareness.

HPV vaccines and screening for HPV infection are being considered as very effective tools for cervical cancer control. For many developing countries it is difficult to establish organized screening programmes. But an effective screening for cervical cancer can reduce the incidence of cervical cancer upto 90%.

Women education ,Improving standards of living ,Motivated health education, along with this early detection of cervical cancers using screening procedures like cytology, HPV DNA detection and provision of facilities and infrastructures for treatment can control HPV infection This, also decreases the cervical cancer incidence in developing countries[3].

REVIEW OF LITERATURE

Cervical HPV infection:

Cancer cervix is the third most leading cancer in female population in the world, while it is the most common cancer in female population in developing countries. HPV, DNA detection was used as an adjuvant for PAP screening.

Occurrence of asymptomatic genital HPV infections and also occurrence of HPV related anogenital cancers are more common among developing countries like India.

In female general population, the HPV occurrence with normal cervical cytology is 8%. The occurence of HPV 16 and 18 strains among female population with routine cytology is 6%[4]. Generally the prevalence of HPV is higher in developing countries especially rural India[4].

Incidence:

The incidence of cervical cancer vary among different population. This depends on the HPV prevalence in that population and other associated cofactors that contribute to the development of cervical carcinoma.

Cervical cancer accounts for 15% of all malignancies in women all over the world. Carcinoma cervix is the major cause of death in women in India especially rural India. In south east Asia 20-30% of the malignancies are attributed to carcinoma cervix.

Cancer cervix is a major cause of death among women, living in developing countries. In 2007, the projected incidence of cases of cancer cervix according to national cancer registry of India was

90708 with five year survival rate of about 48%. It is estimated that in India 1,26,000, new cases occur each year[5]. Only malignancy that can be prevented with primary preventive measures like screening and vaccination is the cervical cancer. With the PAP smear screening program, a marvellous reduction has been observed in the incidence and mortality of cervical cancer globally[5].

HPV: INDIAN SCENAIRO[6]

There has been a rising tendency of genital wart infections in the past few years (HPV 6 & 11 are responsible for 90% of genital warts). Cervical cancer is the most common malignancy among women in India. Approximately 500,000 women are detected annually all over world.

HPV prevalence and distribution in women from India were found to be higher, especially in rural India[5,6].

Cytology/ Histology	HPV Prevalence
Invasive cervical cancer (ICC)	94.6%
High grade squamous intraepithelial lesion (HSIL)	86.5%
Low grade squamous intraepithelial lesions (LSIL)	65.4%

Normal 12%

HPV type distribution in women from India:

HPV DNA detection in squamous cell carcinoma was found positive in 99% of cases. Of these cases, Using PCR technique[7] HPV types 16 and 18 are isolated in higher percentage.

In Indian women, it affects nearly 132,000 and death 76000 every year.

MOLECULAR VIROLOGY OF HUMAN PAPILLOMAVIRUS

Human papilloma virus is a small double stranded DNA virus of the papova virus family. It is a spherical virus measuring approximately 50nm in diameter. The genome of the virus, a covalently closed circle of super coiled DNA, is placed inside a non-enveloped icosahedral capsid[8]. Detergents, formalin and high temperature, can open the viral (K) capsid and the antigen can be exposed. Its molecular weight is 5 X 16^6 Daltons. Each genome is made of 800 nucleotide base pairs .The HPV genome is separated into three divisions based on the function of that particular genome. The genome coding for viral proteins classified as 'E' (early) and 'L'(late) proteins. The 'E' genes are required for viral replication and the 'L' genes for structural proteins that form the capsid[10].The

early genes are E_1 E_2 E_4 E_5 E_6 E_7 and late genes are L_1 L_2 L_3[9]. The E region are the genes involved in invasive carcinoma by interacting with host cell The third non coding region, that is essential for regulatory functions of the virus proteins.[10]

CULTURE CHARACTERISTICS

HPV virus needs differentiating squamous epithelium for their growth. These viruses do not grow in vitro. Some amount of infectious viruses can be generated using a raft culture system, which forms a stratified squamous epithelium.

VIRAL LIFE CYCLE

Comprise of attachment, Entry, Uncoating, transcription of viral genes, Viral replication, Viral assembly and release[11].

ATTACHMENT

- HPV binds promiscuosly to wide range of cell types.
- Heparan sulfate proteoglycans, are important for binding to some target cells[12].
- Clathrin mediated endocytosis - allow entry of virus[13].
- HSP-70 chaperone protein has been suggested as a mediator of uncoating. [14-16]

TRANSCRIPTION OF VIRAL GENES :

- ❖ E1 & E2- Expression occur in basal cell, to maintain episomal replication of HPV genome.[17]
- ❖ E6 & E7 – promote proliferation of parabasal cells.

They provide replication machinery for viral DNA replication.

E2 has a repressing effect on the viral promoter gone. Its loss allows increased expression of oncogenic proteins E6 and E7. Both the integration of E6 &E7 and loss of E2 expressing episomes are necessary for cancer progression.[19]

VIRUS ASSEMBLY AND RELEASE:

HPV infections are not cytolytic, release of viral particles is due to desquamating cells.

HUMAN PAPILLOMA VIRUS AND ANOGENITAL WARTS:

In 1980, however Gissmann and Zer Hausen,[20] isolated and characterized HPV 6 from a genital wart. They define the etiological agent for genital warts. Anogenital warts have been recognized as a disease entity for many centuries. The term 'Condyloma' is derived from ancient Greek meaning' a round swelling adjacent to the anus'.

There has been a rising tendency of genital wart infections in the past few years (HPV 6 & 11 are responsible for 90% of genital warts) .This reflects the changing cultural attitude towards sex and also due to the increased awareness among public and the easy availability of health care services[22].

AGE GROUP:

Anogenital warts most frequently occur during 2nd and 3rd decades of life.[23,24] As many other STD infections HPV also infects the reproductive age group[25].

INCUBATION PERIOD:

The incubation period may vary ranging from 3 months to 8 months[26]. The mean incubation period is 2.8 months. upto 2/3rd of sexual partners will develop warts within six months.

MODE OF TRANSMISSION OF ANOGENITAL WARTS :

- Anogenital warts are usually acquired by sexual transmission.[27] Sexual intercourse is the principal mode of transmission.
- Transmission from subclinical cases are common.Rarely, it may spread by non-sexual modes. Transmission of virus from hand warts is exceedingly rare.

- Infection from the mother's genital tract at delivery appears to be the most common cause of anogenital warts in children presenting upto 2 years of age[28,29].
- Iatrogenic transmission can occur in gynecology clinics during speculum examination while sharing unsterilised instruments which can cause spread of infection from one person to another person.

MODES OF TRANSMISSION OF CUTANEOUS WARTS:

The source of infection is a clinical or subclinical case of HPV infection, as well as virions which may be present in the environment. It is transmitted by contact directly or indirectly. The important predisposing factor is disruption of the epithelium, skin or mucosa. Home, school, barracks, swimming pools and instruments used by barbers and cheiropodists and shared towels provide opportunities for spread of the infection.[30] Shaving can cause spread of warts to different areas of the face. Viral particles have also been detected in the fumes that emerge on treating warts by electrosurgery or laser here the operator is at the risk of developing laryngeal warts.

Certain occupations, in which the individuals are prone to injury and come in contact with the flesh of animals like butchers, fish and poultry workers, have high incidence of warts.

INFECTIVITY

Genital warts are the most infective type of warts. Almost two thirds of the sexual partners of those patients with genital warts develop or have subclinical warts.[31] The HPV DNA can be detected with in a period of 1 year after the infection . The infectivity of other types are lower. Low risk anogenital HPV types are HPV types 6 and 11 which rarely progress to invasive disease. The high risk types are HPV types 16 and 18 and are found in approximately 40 to 60% and 10 to 20% of all cervical carcinomas, respectively.

IMMUNOPATHOLOGY

Cell mediated immunity are essential for the control of papilloma virus infection[32]. The individuals with inherited immune deficiency affecting T cell response are more prone to HPV infection. The virus is not cytolytic. It does not have a blood borne stage.[33,34]

Humoral immunity doesnot play a significant role in preventing HPV infection or maintenance of latency. They may be a good marker of infection and hence a valuable epidemiological tool[35].

HISTOPATHOLOGY OF ANOGENITAL WARTS:

Thickening of stratum comeum. Acanthosis and papillomatosus. Thickening and elongation of rite ridges.

'Koilocytes' are the most characteristic feature for the diagnosis[36]. The epithelial cell have the perinuclear halo. The cytoplasm will be condensed peripherally. Centrally hyperchromic and large nuclei will be seen.

HPV TYPES:

Because of the tissue tropism, specific HPV types infect particular epithelium. HPV types 1 and 2 are found to infect thickened skin of palms and soles, causing palmar warts and plantar warts. The keratinized skin and mucosal epithelium of anogenital areas are commonly infected by types 6,11,16,18. Types 16 and 18 are the causative factors of invasive cancers in anogenital tract.

Clinical Features:

Genital warts as a manifestation of papilloma virus infection represent the tip of the iceberg, when considering the total spectrum of infection. The Infection may remain asymptomatic ,with out any disease manifestation[37]. For many years it may remain latent, unlike other STDs it does not produce any acute symptoms like discharge, itching or burning pain[38].

Clinical manifestations associated with different HPV types [39,40,41]

TYPE OF WART	HPV TYPE
Plantar warts	1,2,4
Common warts	2,4,1,7,57
Plane warts	3,10,41,27
Flat warts	3,10,28,49.
Epidermodysplasia verruciformis	5,8,9,12,14,15,17,19-27,36,46,47,49,50
Genital warts (low risk of malignancy)	6,11,30,34,40,42-44
Genital warts (high risk of malignancy)	16,18,31,33,35,39,45,51

NON –GENITAL MUCOSAL

Mouth(focal epithelial hyperplasia)	13,32.
Laryngeal papilloma	6,11
Maxillary sinus papilloma	57.
Carcinoma(head,neck, lung)	16,18,30.

Almedia theory of one way cross reactivity:

The hand wart can be autoinoculated onto the genital mucosa, whereas the genital warts do not produce any cutaneous lesions.

GENITAL LESIONS

Clinical features:

Most HPV infections are asymptomatic unlike other STD's it does not manifest with symptoms like itching, burning, discharge, majority of the infections with HPV does not develop disease. The two most common clinical manifestations of HPV that require treatment are genital warts and HSIL (High grade squamous intra epithelial lesions).[38]

Condylomata acuminata	6,11.
Non – condylomatous lesions and or CIN	6,11,16,18,26,27,30,31,33,34,35,39,40,42-45,51-53,56- 9,61, 62,67-71,73,74, 81
Carcinoma	16,18,26,31,33,35,39,45,51,53,56,58,59,66-68,73,82.

While a restricted number of genital HPV types have been linked to the cancer, most have been linked to the development of squamous intra epithelial lesions of cervix, vagina, vulva, penis, or anus[39].

More than 100 HPV types are known is occur that are categorised into three board categories depending on their oncogenic potential.

High risk types	:	HPV 16, 18, 31, 32, 35, 39, 45, 51, 52, 56, 58, 59, 68, 73, 82.
Intermediate Types	:	HPV 26, 53, 66
Low risk types	:	HPV 6, 11, 40, 42, 43, 44, 54, 61, 70, 72, 81 and CPI 108[40]

Within the spectrum of subclinical infection, there are several distinct entities, namely

(1) Acetowhite epithelium

(2) Macroscopically normal epithelium, but with cytological or histological evidence of HPV infection, such as Koilocytes .

(3) Macro and microscopically normal epithelium in which HPV has been detected by such means as in situ hybridization or DNA amplification by PCR.[41]

ROLE OF HPV IN CANCER:

In the etiology of anogenital cancers, the role of HPV has been strongly established in a large amount of molecular and

epidemiological studies. After the entry of virus into the host cell, the viral genome will be integrated into the host cell. Subsequently, on accumulation of further mutations and co-factors, leading to development of cancer. E6 and E7 are the two viral genes, that are invariably retained and expressed in tumours. E7 firstly disrupts the signal that normally prevents a cell from entering S phase once the cell has left the basal layer[42]. Both E6 & E7 bypasses and damages the DNA checkpoints. They also disrupts the signals included in growth arrest.

Inactivation of check points leading to the genetic instability. This gives rise to genetic changes required for tomourogenicity. The exact combination of the effects of E6 and E7 are necessary for immortalization and transformation.[43] It is mediated through whether P53 inactivation or telomerase activation or both is yet to be studied[44].

PATHO-GENESIS:

Virus strains -16, E7 oncoprotein is able to bind to the retinoblastoma gene product.[45] Deletions or mutation of the retinoblastoma gene RB1 are common features of many tumours and tumor cell lines. Recently RB1 gene product P105-RB has been shown to form stable protein. Protein complexes with oncoproteins

of DNA viruses such as, adenovirus[44] E1A protein and simian virus 40 (SV 40) large T cell antigen. The oncoprotein E7 of HPV-16 can form similar complexes with P105-RB.[46] Human papilloma virus - 16 is detected in relation to about 50% of cervical carcinomas[47].

PATHOGENESIS AND PROGRESSION:

Retinoblastoma gene has been implicated in many tumours. It is found that E7 onco gene protein of HPV-16, binds to the RB gene product and form complexes. Like the oncogenic virus Adeno and simian 40 E6 Protein of HPV form stable protein complexes.

Only certain intraepithelial lesions progress to invasive cancers. In CIN 1,2,3 lesions, 60%, 40% and 35% of them regress Spontaneously. 40% of CIN's persist and progress to malignancy[48] i.e 1% of CIN, 2% of CIN2 and 5% of CIN-3 progress to Cancer.

Co-factors in HPV Carinogenesis:

These factors can be broadly classified as[49]

- Viral co-factors
- Host co-factors
- Environmental co-factors

Viral co-factors are

- Viral persistence
- HPV variants
- Viral load and integration

PERSISTANCE OF INFECTION

Most of genital HPV infections are abortive.[50] Most of the new infections can be detectable for less than 2 years. Persistant[54] high risk HPV infections is a “risk marker” for future development of CIN3.[51,52]

HPV Variants

High risk variants include HPV- 16, 18, 33, 58. These variants are associated with CIN-3 and invasive squamous cell carcinoma.[53]

Viral Load

High viral load associated with risk of CIN 2, 3. Among women with pap abnormalities, a consistently high viral load is a predictor for progression to high grade lesion.[54]

Host factors

Decreased risk of CIN 3/ CIS and SCC are associated with HLA Class II DRB1*13, DRB* 1301-5 and DQB1*0603 alleles.DRB1*13 is associated with increased probability of regression of CIN lesions.[55]

ENVIRONMENTAL FACTORS

Risk factors include

- Multiple sex partners[56]
- Early age of first intercourse
- Multi Parity[57]
- Cigarette smoking[58,69]
- Hormonal contraceptive use[59]

Other STD's and HPV infection:

By causing chronic inflammation, Other Sexually Transmitted Diseases enhance the host liability to HPV.

HSV-2 and Chlamydia trachomatis are well established co-factors.[61, 62]

Association with high parity and hormonal contraceptive use:

1) High parity expose the transformation zone for longer duration of time making the zone susceptible to HPV exposure.[60,61]
2) Hormonal changes like increased levels of estrogen and progesterone during pregnancy could reduce the immune response to HPV.[61]
3) Oestrogen could promote viral integration into the host genome, and stimulate E6 and E7 oncogenes of HPV.

HPV AND HIV [63,64,65,66]

HIV infections has been associated with a greater incidence and persistence of CIN, HIV associated with higher prevalence of cytologic abnormalities and histologically confirmed CIN. Detection of HPV & CIN increases as the CD4 count falls. Many studies have shown increased risk of cervical cancer among HIV-positive women. These may be mediated through HIV targeting of specific genes and direct viral – viral interactions[42].HIV -1 tat protein will upregulate E6 and E7 of HPV virus, that are responsible for oncogenic potential.[63]

HIV patients infected with HPV present with large genital warts, at times they become locally invasive and destructive. These tumours are called giant condyloma's or Buschke - Lowenstein tumour they are non metastasizing, carry a risk of transformation in squamous cell carcinoma.

PATHOGENESIS OF HIV AND HPV CO-INFECTION[64]

1. HIV facilitates activation of recently acquired HPV infection.

2. Causes reactivation of latent infection.

3. Both extracellular and Intracellular HIV-1 tat MRNA can transactivate HPV type 16, E6 and E7.

4. HIV-1 tat protein also migrates to infected epithelial cells to upregulate E6 and E7.

HIV positive women are at the greatest risk for HPV infection and intraepithelial neoplasia. Cervical cancer is an AIDs defining illness. Particularly individuals with CD 4+ T cell count less than 200/microlitre are more vulnerable.

CDC guidelines recommends two pap smear during initial 1st year after diagnosis of HIV, thereafter if normal, yearly.

CYTOLOGY BASED CERVICAL CANCER CONTROL IN DEVELOPING WORLD[68,69]:

The annual screening may decrease the cancer incidence by 90% or more in developing countries like India. For every one lakh test performed, we can detect 33 cases of cancer but this needs 45 tests to be performed per women[67].

This can be reduced to screening in every 3 years. This can detect upto 95 cases of cancer for every 100,000 test done. It will reduce the incidence of invasive cervical cancer by atleast 71%[68].

HISTORY

The pap smear was deviced by a greek pioneer in cytopathology, Dr.Georgios nikolaou papanikolaou. This test is the most effective screening programme. Most effective role in cancer reduction programme[68,69].

Together with Dr.Herbert Traut, he published the book on diagnosis of vaginal and cervical cancer.

He first reported that uterine cancer could be detected by means of a vaginal smear in 1928. But the significance of his work was not accepted until the publication, together with Herbert Traut, in the diagnosis of uterine cancer by vaginal smear' in 1943. The book discusses preparing of vaginal and cervical smear, smear changes during the menstrual cycles, the effects of various pathological conditions and the changes seen in the presence of cancer of cervix and carcinoma endometrium.

Dr. Georgios Nikolaou Papanicolou work was credited with ''Albert Larker Award" for his in Clinical Medical Research in 1950[24].

THE BETHESDA SYSTEM

In 1989, the Bethesda system was introduced for standardized reporting of cervical cytology smear study[70]. This can be integrated with detection of HPV to gain further information. The name for ‘‘preinvasive squamous lesions’’ was changed to ‘‘squamous intra epithelial lesion’’.

The 2001 Bethesda system, recommended a protocol for the cytology report it includes an report on sufficiency of specimen, followed by general categorisation and the analysis of results.

The general categorisation is an optional component of the 2001 Bethesda system.

- NIL (or) Negative for intraepithelial lesion or malignancy
- Abnormality of the epithelial cell
- Others

INTERPRETATION/ RESULTS

NEGATIVE FOR INTRAEPITHELIAL LESION OR MALIGNANCY ORGANISMS

Include detection of organism like

1) Trichomonas vaginalis

2) Budding yeast forms similar to candida species.

3) Bacterial vaginosis concluded by shift in flora

4) Actinomyces species with consistent morphology

5) Cellular changes consistent with Herpes Simplex Virus (HSV).

OTHER NON-NEOPLASTIC FINDINGS

1) Reactive cellular changes associated with inflammation (includes typical repair) radiation therapy, Intra Uterine Contraceptive Device (IUCD).
2) Post hysterectomy status.
3) Atrophy

I. Epithelial cell abnormalities

A. Squamous cell

1) Atypical squamous cell (ASC)[71]

a. Atypical squamous cells of undetermined significance (ASCUS)

b. Atypical squamous cells in which High Grade Squamous Intra Epithelial Lesions cannot be excluded HSIL (ASC-H).

2) Human papilloma virus (HPV), dysplasia and cervical intra epithelial neoplasia (CIN)1 are categorized under Low grade squamous intraepithelial lesion (LSIL)

3) Moderate and severe dysplasia, Carcinoma in situ, CIN2 and CIN 3 are categorized under High grade squamous intraepithelial lesions (HSIL).

4) Squamous cell carcinoma.

Glandular Cell

1.Atypical

a. Glandular Cell (Not Otherwise Specified or specify in comments)

b. endocervical Cell (Not Otherwise Specified or specify in comments)

c. endometrial Cell (Not Otherwise Specified or specify in comments).

2.Atypical

a. glandular cells, suggesting neoplastic

b. endocervical cells, suggesting neoplastic

3.Endocervical adenocarcinoa in situ.

4.Adenocarcinoma.

II. Other

Endometrial cells in a women $\geq$ 40 years of age.

THE NORMAL PAP

Squamous Cells

The lining epithelium of ectocervix is stratified squamous cells.

The ectocervix is lined by a stratified squamous epithelium. This matures under the influence of estrogen. The squamous cells. with full maturity are called superficial cells. These squamous cells have tiny pyknotic nuclei with 5-6 μm in diameter.

Intermediate cells measuring about 8 μm in diameter have a larger nuclei. The nucleus not pyknotic, it will be granular finely. Large polygonal cells with transparent pink cytoplasm may be a superficial squamous cells or a intermediate cell.

During pap test, only the upper layers are sampled. The immature cells at the base are not usually sampled. In conditions like low estrogen levels, the immature basal and parabasal cells will be present in upper layers also.

Sometimes, densely keratinised cells with small pyknotic nucleus and esinophilic cytoplasm may be seen. These changes are characteristically seen in parakeratosis. Parakeratosis is included in benign reactive changes, which is caused by chronic irritation. With

this changes coupled with nuclear atypia in the form of enlargement are membrane irregularity with hyperchromasia, they are called dyskeratocytes or atypical parakeratosis. This is categorized under epithelial cell abnormality.

ENDOCERVICAL CELLS

- Endocervical cells are columnar cells
- They produce mucin
- They have eccentrically placed nucleus with a indistinct nucleoli
- This nucleoli become more prominent in reactive conditions.

Other normal finding are,

- Endometrial cells which are exfoliated and abraded
- Trophoblastic cells and decidual cells.

INFLAMMATORY CELLS

Inflammatory cells such as neutrophils lymphocytes and plasma cells may be seen in pap smear. Presence of neutrophils in the cervical specimen donot necessarily indicate infection. There are present in increased numbers after infection or injury.

Very rarely, lymphocytes and plasma cells are found. In older women the pattern called follicular cervicitis has been described. The biopsy of this lesions, shows lymphoid follicule formation. This can be confused with HSIL endometrial cells or lymphoma. Histiocytes seen in,

- Antepartum cervix
- Radiation therapy
- Foreign body
- During menstrual cycle
- Endometrial hyperplasia
- Endometrial carcinoma

But their presence may be non specific, without significance.

LACTOBACILLI

The Normal vaginal flora is predominantly colonized by lactobacilli. The lactobacilli are gram positive rod shaped bacillus. It is a commensal not pathogenic. The cellular pattern described in the presence of lactobacillus is known as cytolysis. Here the glycogen contained in the squamous cells are metabolized. Hence the cells have not cytoplasm with the bare cell nuclei .

ARTEFACTS AND CONTAMINANTS[70]

- Cornflaking
- Cockle burrs
- Trichome
- Carpet beetle parts.

ORGANISMS AND INFECTIONS[71,72,73]

1 .Shift in flora suggestive of bacterial Vaginosis

- ❖ Mixed flora, Short, curved coccobacilli
- ❖ Absence of lactobacilli
- ❖ Filmy appearance of the slide
- ❖ Clue cells with indistinct margin

Trichomonas vaginalis

- ❖ Length is 15-30 μm
- ❖ Pear shaped

- peripherally placed pink nuclei
- Markedly pink cytoplasmic granules

Candida:

- Eosinophilic
- Budding yeast forms which is 3-7μ in diameter
- Both true and pseudohyphae are seen.
- Tangles of squamous cells around pseudohyphae .

Actinomyces species

- Bacterial clumps
- Organisms with elongated filaments

Herpes simplex

- Multi nucleated giant cell
- Altered nuclei
- Peripheral location of chromatin
- Nuclei have a ground glass appearance
- Oesinophilic intra nuclear inclusion bodies

Cytomegalovirus

- Single nuclear cells
- enlarged nucleus
- Intra nuclear basophilic inclusion
- Cytoplasmic inclusions which are granular

***Chlamydia trachomatis*[73]**

- ❖ Vacuolization in the cytoplasm
- ❖ Inflammatory infiltrate with predominant lymphocyte population.

RARE INFECTIONS

Amoebiasis- Entamoeba histolytica.

Calymmato bacterium granulomatis:

Seen as encapsulated gram negative bacterium that is concentrated in macrophages and difficult to seen with the papanicolaou stain.

REACTIVE CHANGES

Reactive changes may be due to the infection or hormonal stimulation. It may be due to trauma or radiation. These reactive changes may mimic squamous or glandular lesions, leading to confusion.

CELLULAR CHANGES INDUCED BY RADIATION

- Irregular giant cells.
- Multiple nuclear
- The nuclear cytoplasimc ratio will be normal
- Vacuolation will be seen in cytoplasm
- Cell repair features

CELLULAR CHANGES ASSOCIATED WITH IUDS

- Vacuolation in the cells
- Tiny cells with resemblance to HSIL

HORMONAL EVALUATION

The degree of cell maturation varies. Depending on the circulating levels of estrogens, androgens and progestogens. Hormonal evaluation is performed from vagina.

GRADING SQUAMOUS INTRAEPITHELIAL LESIONS

The Bethesda system recommends a low grade / high grade approach to grading SIL. Most HSIL's are seen with persistence of viral infection which has the immense potential for progressing to invasive cancer[74].

LSIL encompass Koilocytes (flat condyloma) and mild dysplasia (CIN 1). This distinction is not reproducible and both lesions contain a heterogenous distribution of low risk and high risk HPV types.

HSIL encompass lesions previously described as moderate dysplasia (CIN2) and as severe dysplasia/ carcinoma in situ (CIN 3).

SQUAMOUS CELL CARCINOMA[75]

SCC is the most common malignant tumour of cervix cytomorphological features include,

- HSIL features
    - Meganucleus
    - distribution of chromatin will be irregular
    - Morphology of cells favouring malignancy ie Tumor diathesis
    - Tadpole cells
    - Fiber cells

ATYPICAL SQUAMOUS CELLS OF UNDETERMINED SIGNIFICANCE[76]:

- ❖ Vacuolated cells resembling atypical cells with mature cytoplasm, suggestive of Koilocytes
- ❖ Atrophic squamous cells
- ❖ Parakeratosis with atypicality
- ❖ Atypical repair
- ❖ Atypical cells due to sampling and laboratory error

Atypically ‘mature’ squamous cells with features suspicious of a SIL are defined as ASCUS.

Screening guidelines:

Different for different countries[77,78]

1. In ideally screening should be started at the the age of 20 or 25 and continuous until about the age of 50 or 60.

2. To be continued upto the age of 50-60 years.

3. If the results were normal in routine schedule screening, thereafter can be repeated ever 3 years.

4. Should not be screened before age 21. American congress of obstetricians and gynaecologist (ACOG) and others recommended starting screening at age 21.

5. Screening should be started atleast a few years (2-3 years) after the first intercourse.

6. After an abnormal pap smears more frequent pap smears may be needed

   - Following treatment for abnormal pap

   - Following abnormal biopsy results

   - Following after treatment for cancer.

7. A doctor may suggest having the test more often if a women has certain risk factors such as human immunodeficiency virus infection or a compromised or defective immune system.

8. Women aged 70 years or more who have had no abnormal results in the previous 10 yrs may stop cervical screening[78].

9. Women aged 70 years or more with three or more consecutive normal pap results can stop cancer screening.

10. After the removal of cervix while under going total hysterectomy the screening is not done. But n case if the hysterectomy was done for cervical cancer or precancerous intraepithelial lesions screening should be as usual[79].

Effectiveness and limitations of pap smear:

Pap test has both the negative predictive value and positive predictive valve. The result can be both false negative or false positive.

The mean sensitivity of the pap test is 47% (range 30-80%) and the mean specificity is 95% (range 86-100%).

Adenocarcinoma of endocervix which constitute about 15% of all cervical cancers has not been prevented by PAP test. Moreover this has a low test sensitivity for detecting CIN 2 and CIN 3 leisons, with the sensitivity range from 47% to 62% [80]

To increase the sensitivity of PAP test

1. Repeat PAP can be done
2. Liquid based cytology (LBC) can be used
3. High risk HPV types detection can be done
4. Detection of HPV in self collected specimen from vaginal wall or urine[81]
5. Combined with visualisation of cervix.
6. Non HPV related molecular markers that can be used are PCNA, P16 INK 4a, Ki 67 (MIB-1), cdc 6 and mcm5, Telomerase, cyclin E.

The false negative rate for invasive cervical cancer ranges from 16% to 82%. This may be due to

1. Sampling error

2. Laboratory error

To identify 33 cases of cancer one women has to undergo 43 test, for every 100,000 tests.

The annual screening with pap smear can reduce the cancer incidence to 93%. An organised screening programme with the regular follow up can reduce the cancer rate by 80%-90% the failure of this reduction may b due to following reasons.

- Sampling error
- Interpretation error
- Not getting regular follow up of abnormal results
- Not getting screening regularly.

PREVENTION:

Consistent use of condom with regular partners has not been shown to affect the outcomes or manifestations of HPV infection. Like most other STD's the best method of prevention is ABC.

- Abstinence[82]
- Be faithful to the partner
- Condom usage.

The HPV Vaccines:

The persistence of HPV infection due to failure to clear HPV from infected cells is due to defective host immune response or a defective viral immune evasion mechanism.

To improve host immune response to clear invading HPV,two 'L_1 virus like particle' HPV vaccines are available, a quadrivalent vaccine (Gardasil) involving HPV- type 6, 11, 16, 18 and bivalent vaccine (Cervarix) involving the two most prevalent HPV oncotypes 16 and 18.

They are administrated as three intramuscular injections in 3doses, 1st dose on day 1, 2nd dose 1 month later, and 3rd dose 6 months later.

Can be given from the age of 9 yrs.Ideally before the onset of sexual activity.

These vaccines are conferring protection against the two most common high risk HPV associated with cervical cancers in young women. They should be uninfected by these two types at the time of vaccination[83].

The HPV vaccines appear to provide protection from HPV infection up to 3 years in studies[84].

MANAGEMENT OF ABNORMAL CYTOLOGY RESULTS:

MANAGEMENT OF WOMEN WITH ASCUS[85]:

Repeat PAP screening (or) combine PAP cytology with adjunctive method like HR-HPV DNA testing. It found positive, immediate colposcopy to be done.

MANAGEMENT OF WOMEN WITH ASC-H:

Directly referred for colposcopic evaluation. If found negative repeat cytology at 6 and 12 months.

MANAGEMENT OF WOMEN WITH LSIL:

The women should be referred for colposcopic evaluation.

MANAGEMENT OF WOMEN WITH HSIL:

Women with PAP smear cytology consitent with high grade squamous intra epithelial lesions should be referred to undergo colposcopic evaluation. Endocervical assessment should be done.

For confirmed HSIL, the women should undergo immediate LEEP for cytological abnormalities.Only if invasion is suspected, a diagnostic excisional procedure is recommended.

AIMS AND OBJECTIVES

A Study on prevalence of abnormal cervical cytology using PAP smear as a screening procedure among the attendees of female STD OPD.

- To study epithelial cell abnormality.
- To study the associated STIs.
- To detect benign cellular changes.
- To reinforce the practice to do PAP smear routinely.

MATERIALS AND METHODS

STUDY DESIGN

Cross-sectional study.

STUDY GROUP

500 female patients were enrolled in the study female .All the female patients attending the STD OP Department.

The ethical committee clearance was obtained and informed consent was taken from the recruited women.

INCLUSION CRITERIA:

- All the women aged 19 and above after vaginal sexual exposure.

EXCLUSION CRITERIA:

- Pregnant Women & lactating women.
- Females during their menstrual cycle
- Women below 19 years
- Females before vaginal intercourse
- Women who had a total hysterectomy for causes other than cervical cancer

After the fulfillment of inclusion criteria were included in this study.

A detailed history was obtained pertaining to the following parameters - age, occupation, socioeconomic status, educational status, marital history, sexual, contraceptive, obstetric, past, personal, recent treatment history, history suggestive of systemic ailments, and sexually transmitted infections related symptoms as per the proforma enclosed.

EXAMINATION PROCEDURES DONE IN OP SECTION:

The clinical examination consisted of local inspection of external genitalia for any growth, swelling or ulcer. This is followed by visualization of the vagina and cervix with a non lubricated speculum.

EXAMINATION

A thorough genital examination was done using Cusco's self retaining bivalve speculum and the abnormalities in the vulva, vagina and cervix were noted. The amount, odour, colour and consistency of vaginal discharge were noted. The discharge was labeled scanty if it was insufficient to collect on the speculum; moderate if it was sufficient to collect on the speculum and profuse if it was visible at the introitus even before speculum insertion. The

vaginal pH was measured directly using pH indicator strips against the lateral vaginal wall or over speculum blade.

Firstly, specimens for cervical cytology were obtained from ectocervix with a wooden spatula rotated 360^{o} and from endocervix with a cytobrush. Slides were fixed immediately with spray fixative.

Vaginal swabs were obtained for vaginal pH, whiff test, and wet mount microsocopy.

Next the ectocervix was wiped clean with large cotton swabs. Endocervical specimens were obtained using cotton swab for gram stain and gonococcal culture.

Screening for HIV antibody using an ELISA technique was performed.

Serological screening for syphilis was routinely performed.

Papanicolau staining was done in the venerology lab, institute of venereology, Madras Medical College, Chennai-3.

Staining was done with rapid pap staining kit.

Side lab procedures in STD

Dark field microscope

Only method of demonstrating T.Pallidum. Identified by movements.

Gram Staining

A thin smear is prepared from the specimen collected over a clean sterile glass slide. The smear may be fixed with the Bunsen burner flame[86,87].

1) The smear is flooded with 1% methyl violet for 1 minute. Washed with distill water.

2) Then again flooded with the mordant gram's iodine for 1 minute and then washed with distil water.

3) Then discolourised with acetone for 2 seconds.

4) After washing with distill water, counter stain with dilute carbol fuschin for 30 seconds.

5) To be visualized under oil immersion, the gram negative STD pathogens like gonococci and calymmatobacterium granulomatis can be seen.

From the posterior blade of the cusco's self retaining speculum, the specimen for the wet mount with normal saline and potassium hydroxide are collected.

KOH mount

A thin smear prepared over the clean glass slide is covered with 10% KOH to be left for 5minutes and them viewed under microscope, fungal elements can be seen as budding yeast with the pseudohyphae.

Wet mount:

After preparation of the thin smear over the clean glass slide, 1% normal saline is used to mount the smear and visualized within seconds for the trichomonas vaginalis organism. Diagnosis of Trichomonas vaginalis infection was done by this method. T.vaginalis is identified as pear-shaped organisms about the size of a pus cell with typical jerky /erratic twitching movement. The specimen should remain moist to retain viability and therefore the motility of the Trichomonads (the microscopy should be performed within 30 min of preparation of the wet mount)[86].

A minimum of 10^4 organisms per milliliter of vaginal fluid appears to be necessary for the identification of the Trichomonas vaginalis by wet mount.

Pap smear

Papanicoloau stained smears have demonstrated T.vaginalis on cytological examination in asymptomatic women. However, detection using the Papanicolaou test results in a high percentage of false-negative results with a sensitivity of 60% and a specificity of 95–97%.[87] Confirmation using another method is recommended.

Trichomonas Vaginalis Culture:

Culture in liquid medium has remained the gold standard for the diagnosis of Trichomonas vaginalis infection for the past 40 years and has the higher sensitivity of 71-100% and specificity of 100%.[27] Various media that have been used to detect Trichomonads are Diamond (Tripticase, yeast and maltose), Modified Diamond, Kupferberg's Trichosel medium, Lash, NIH, Feinberg-Whittington media and cysteine peptone liver media (CPLM).

The use of in Pouch TV culture system has been shown to be at least as effective as Diamond's medium.[73, 82]

MICROBIOLOGICAL PROCEDURES:

Vaginal candidiasis and Trichomoniasis were diagnosed by wet mount microscopy. The diagnosis of bacterial vaginosis are arrived at by use of Amsel's criteria. Cervicitis was diagnosed

clinically by presence of mucopurulent endocervical discharge and/or additional signs of cervical inflammation such as easily induced endocervical bleeding and oedema. An active case of syphilis was diagnosed by either a positive dark field examination or a newly reactive VDRL or a 4 fold rise in non treponemal antibody titre (VDRL)in patients with previous history of syphilis[88].

Genital herpes simplex (HSV) and genital warts were diagnosed clinically.

CERVICAL CYTOLOGY:

Smear were performed at female STD op at Institute of venerology, Madras Medical College, Chennai.

FOLLOW UP OF PATIENTS WITH ABNORMAL RESULTS:

Patients were informed that they would be contacted by phone call in the event of an abnormal results, and were asked to provide a reliable phone number and mailing address. Patients with unsatisfactory smears were invited for clinic for a repeat smear. Patients with atypical smears were asked to undergo repeat pap after 3 months.

Patients with SIL were advised for gynecology follow up.

DIAGNOSIS

1.Trichomoniasis: Diagnosis was made based on the following:

Wet mount:

A drop of normal saline was put over a clean , grease free microscopic slide. To this a drop of vaginal fluid was added and mixed well. A cover slip was put over the mixture, so that there was a uniform spread without air bubble. The slide was observed under 40 x magnification of the objective[88].

Reading: Pear shaped flagellated organisms approximately the size of lymphocyte (10-20 µm) or that of a small neutrophil with characteristic jerky movements.

Culture:

Diagnosis is made by performing wet mounts from the drop of Diamond's culture media for evidence of motile Trichomonads by examining cultures after 48 hours of incubation and on 3rd, 5th and 7th day.

2. ***Bacterial vaginosis:*** Diagnosis was made based on Amsel's criteria in which presence of three out of the four criteria is necessary:

a. Excessive homogenous uniformly adherent vaginal discharge.

b. Vaginal pH more than 4.5.

c. Positive amine test (Whiff test).

d. Presence of clue cells on microscopic examination.

3. ***Candidiasis:*** Diagnosis was made based on positive microscopy and/or culture.

4. ***Mucopurulent cervicitis:*** Those patients whose Gram's stain of cervical smear having 30 or more polymorphonuclear leukocytes per oil immersion field in cervical mucus.

5. ***Pelvic inflammatory disease (PID):*** A diagnosis of PID was made if in addition to the presenting symptoms of abnormal vaginal discharge and lower abdominal pain, cervical motion tenderness was elicited on examination.

RESULTS

The study was conducted in Institute of Venereology, Madras Medical College, Chennai. 500 female patients attending the outpatient department were enrolled in the study.

Total number of patients in the study group- 500.

TABLE-1.1: PREVALENCE OF ABNORMAL, NORMAL & INFLAMMATORY PAP SMEAR

	Frequency	**Percent**
Normal	148	29.6
Abnormal	46	9.2
Inflammatory smear (IS)	306	61.2
Total	500	100.00

Among the total 500 pap smears, normal study was found in 148 pap smears (29.6%), Abnormal pap smear results in 46 smears (9.2%). Inflammatory smear is 306 (61.2%) among 500 smears.

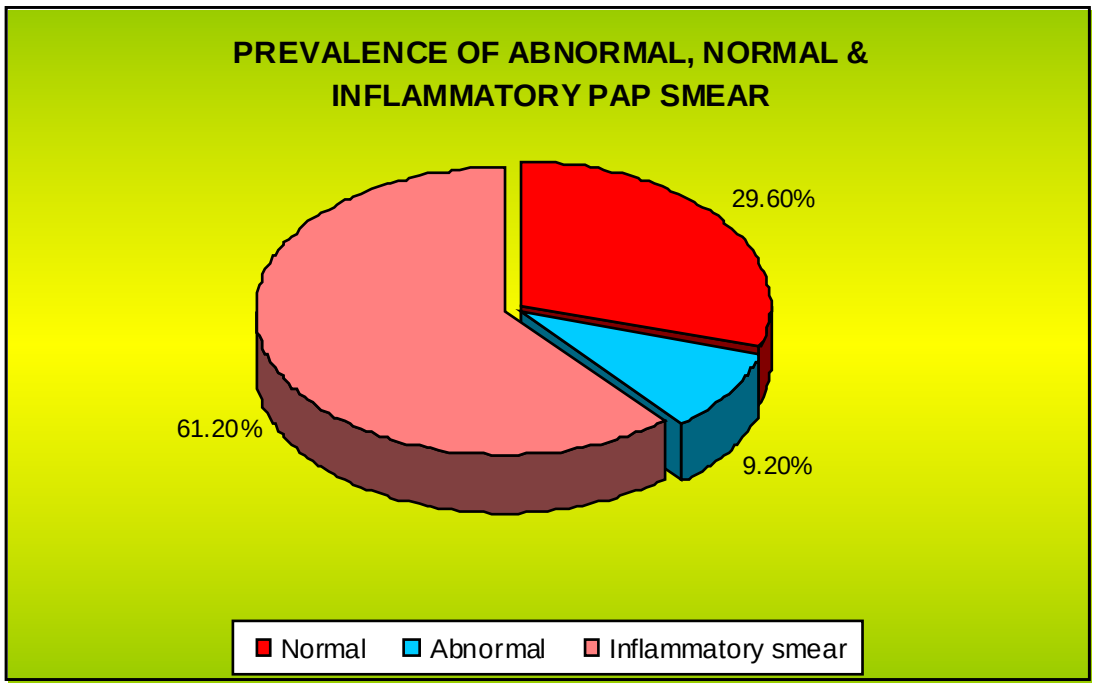

Fig-1: Prevalence of Abnormal, Normal & Inflammatory Pap Smear

TABLE-1.2: PREVALENCE OF INFLAMMATORY SMEARS HAVING MONOCYTES AND LYMPHOCYTE POPULATION,

	Frequency	Percent
Normal	160	32.0
Abnormal	34	6.8
Inflammatory smear (IS)	211	42.2
Inflammatory Smear (Monocytes)	38	7.6
Inflammatory Smear (Neutrophils)	57	11.4
Total	500	100.0

Among the 306 inflammatory smears, 38(7.6%) smears have predominant monocytes and lymphocyte population, 57(11.8) smears have neutrophils predominantly .

TABLE-1.3: VARIOUS GRADES OF ABNORMAL PAP SMEAR

	Frequency	Percent
Not Applicable	454	90.8
HSIL	3	0.6
CA	4	0.8
AT	33	6.6
LSIL	6	1.2
Total	500	100

Among the total number of abnormal pap smear study results. Atypical squamous cells is found in majority that is (6.6%), next is the CA (0.8%), high grade and low grade squamous intra epithelial lesions contribute 0.6% and 1.2% each to the abnormal pap smear study results. This table is excluding inflammatory pap smear.

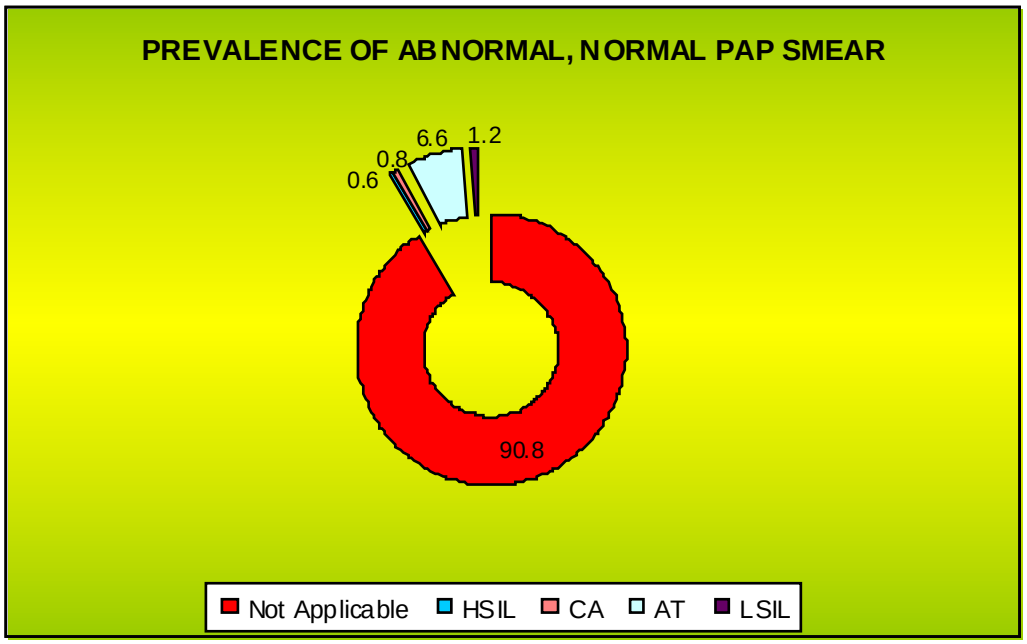

Fig 2: Shows the distribution of LSIL, Atypical squamous cells, HSIL and carcinoma among study population

HSIL - High grade Squamous Intraepithelial Lesion

CA - Carcinoma

AT - Atypical Squamous Cell

LSIL - Low grade Squamous Intraepithelial Lesion

2. SOCIO-DEMOGRAPHIC FEATURES

TABLE-2.1: PREVALENCE OF ABNORMAL PAP SMEAR STUDY AMONG DIFFERENT AGE GROUPS

Age	Normal	Abnormal	Inflammatory smear	Total
18 to 25	30	2	59	91
	31.9%	2.2%	64.8%	100%
26 t0 35	56	22	100	178
	31.5%	12.4%	56.2%	100%
36 t0 45	45	10	105	160
	28.1%	6.3%	65.6%	100%
>45	17	12	42	71
	23.9%	16.9%	59.2%	100%
Total	148	46	306	500
	29.36%	9.2%	61.2%	100%

Majority of abnormal pap smear study was found in the age group of >45 ie 16.9 %.Bimodal age distribution seen between the age groups 26-35 and age group >45.

Majority of inflammatory smear study was found in the age group of 36-45, it constitute 106 smear(34.6%) out of 306 total inflammatory pap smear. This is found to be significant.

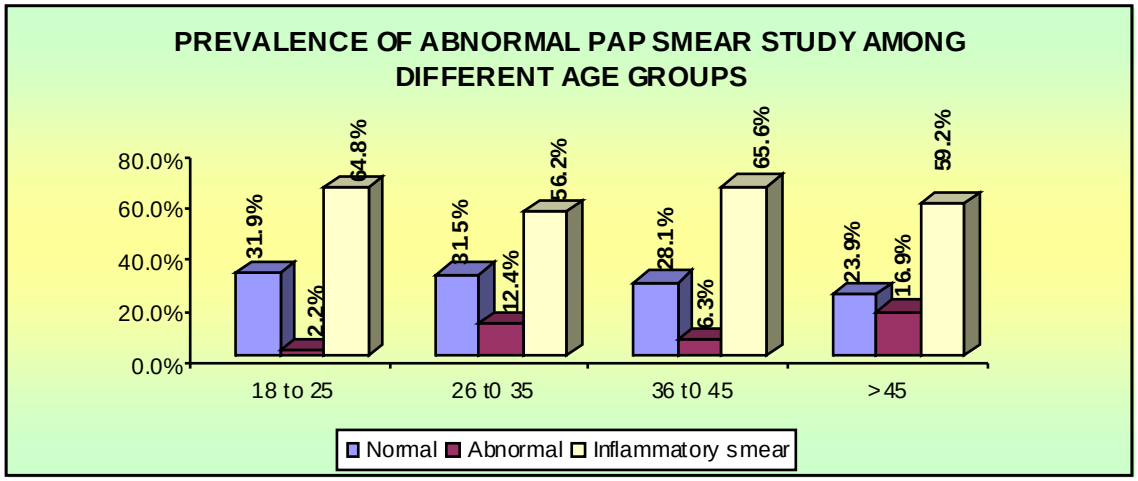

Fig 3: Shows Age distribution of the study group s pap smear finding

TABLE-2.2: ABNORMAL PAP SMEAR AMONG RURAL AND URBAN POPULATIONS

Address	Normal	Abnormal	Inflammatory	Total
Rural	62	19	124	205
	30.2%	9.3%	60.5%	100%
Urban	86	27	182	295
	29.2%	9.2%	61.7%	100%
Total	148	46	306	500
	29.6%	9.2%	61.2%	100%

Inflammatory pap smear results among rural and urban found to be insignificant. Abnormality in urban population (9.2%) and rural (9.2%) population remains the same.

TABLE-2.3: PREVALENCE OF ABNORMAL PAP SMEAR RESULTS AMONG PATIENTS HAVING DIFFERENT OCCUPATION

Occupation	Normal	Abnormal	Inflammatory smear	Total
Coolie	62	12	113	187
	33.2%	6.4%	60.4%	100 %
CSW	9	10	32	51
	17.6%	19.6%	62.7%	100%
House wife	52	18	143	213
	24.4%	8.5%	67.1%	100%
Others	25	6	18	49
	51%	12.2%	36.7%	100%
Total	148	46	306	500

Majority of patients with abnormal cervical cytology belonged to commercial sex workers (CSW) group (19.6%) next high prevalence belong to housewives group (8.5%).This association found to be significant ($P<0.05$).

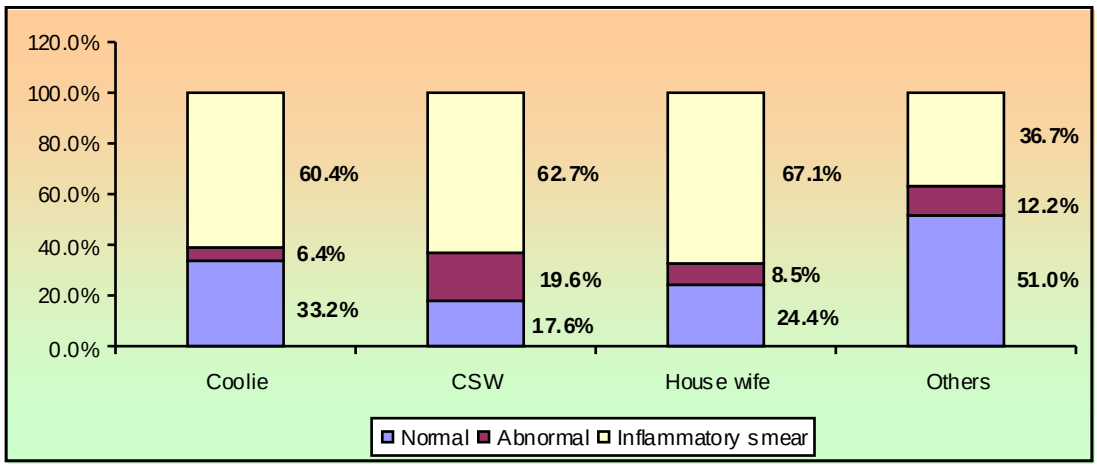

Fig 4: Shows the different occupation of the study groups and pap smear finding in them

TABLE-2.4: DISTRIBUTIONOF ABNORMAL PAP SMEAR AMONG LOW INCOME, MIDDLE AND HIGH INCOME GROUP

Monthly Income	Normal	Abnormal	Inflammatory smear	Total
Low Income	90	20	143	253
	35.6%	7.9%	56.5%	100%
Upper Lower	44	20	112	176
	25%	11.4%	63.6%	100%
Lower Middle	8	4	31	43
	18.6%	9.3%	72.1%	100%
Upper middle	6	2	20	28
	21%	7.1%	71.9%	100%
Upper	0	0	0	0
	0	0	0	0

Among the abnormal pap smear results majority of them belonged to low income (7.9%)and upper lower (11.4%). Middle income group had 9.3% of abnormal cervical cytology.

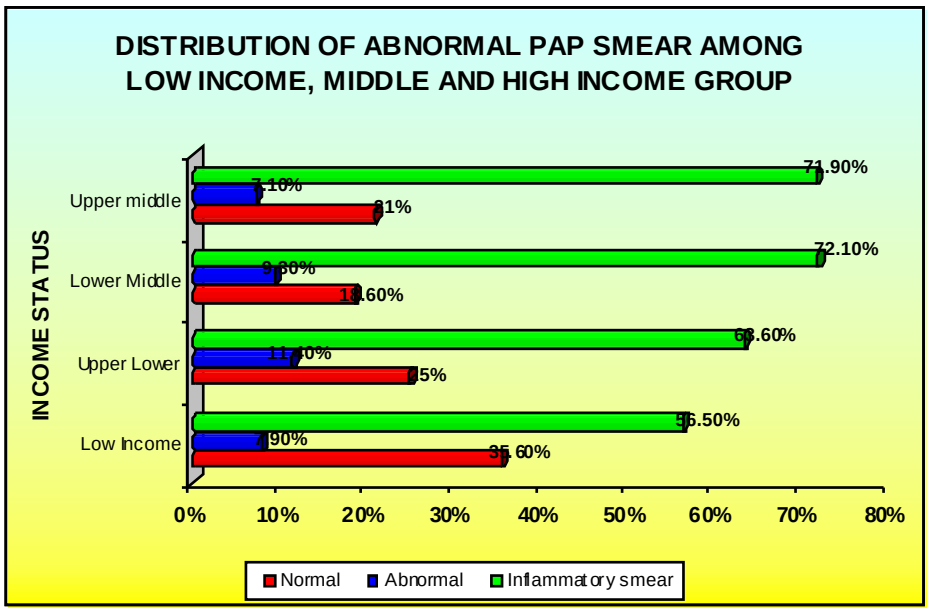

Fig 5: Shows the Income status of the study group

TABLE-2.5: COMPARISON OF EDUCATIONAL STATUS WITH RESULTS OF ABNORMAL PAP SMEARS

Educational Status	Normal	Abnormal	Inflammatory Smear	Total
Illiterate & Primary school education	75	29	139	244
	31.1%	11.8%	57%	100%
Secondary	68	13	130	211
	32.2%	6.2%	61.6%	100%
Graduate	5	4	37	46
	10.9%	8.7%	80.4%	100
Total	148	46	306	500
	29.6%	9.2%	61.2%	100%

Abnormal pap smears seen in majority among illiterate (11.8%) . Next majority of patients have completed their secondary education (6.7%).

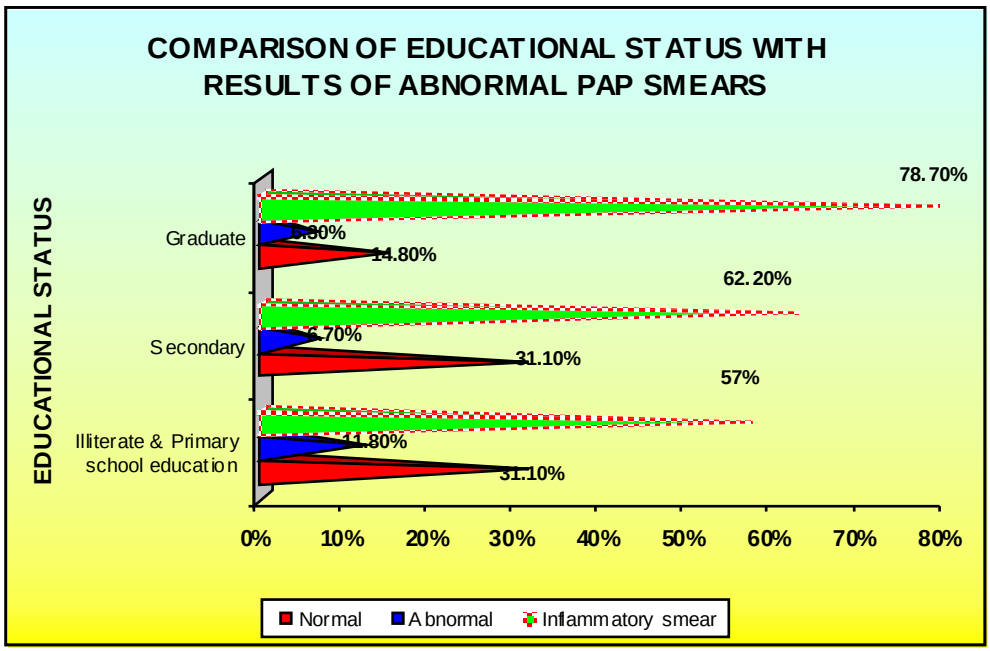

Fig 6: Education Status of the study population

TABLE-2.6: METHOD OF CONTRACEPTION

Method of Contra	Normal	Abnormal	Inflammatory	Total
OCP	5	2	10	17
	29.4%	11.8%	58.8%	100%
Copper T	6	0	14	20
	30%	0	70%	100%
Barrier Method	2	0	0	2
	100%	0	0	100%
Permanent Sterilization	87	24	175	286
	30.4%	8.4%	61.2%	100%
No Contraception	48	20	107	175
	27.4%	11.4%	61.1%	100%
Total	**148**	**46**	**306**	**500**
	29.6%	**9.2%**	**61.2%**	**100%**

In this study only 2 patients used the barrier contraception regularly. Majority of patients in this study has undergone permanent sterilization (57.2%)

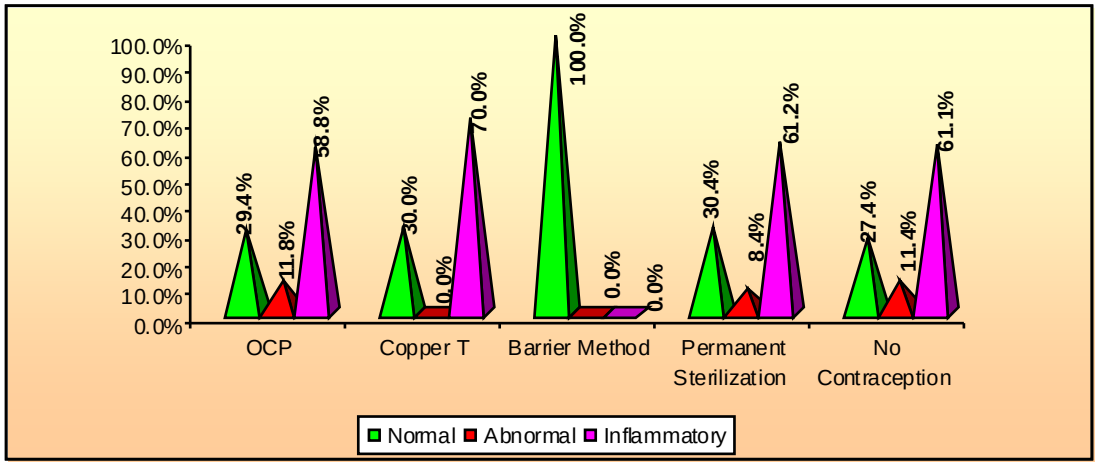

Fig 7: Method of contraception in study population

3. STATUS OF THE PARTNER

TABLE-3.1: SPOUSE ASSESSMENT

Spouse Assessment and Follow up	Normal	Abnormal	Inflammatory	Total
Genital Ulcer	1	0	2	3
	33.3%	0	66.7%	100%
Genital/Urethral Discharge	1	2	5	8
	12.5%	25.20%	62.5%	100%
Not Done	127	31	247	405
	33.9%	9.6%	59.6%	100%
Syphilis	2	1	8	11
	27.3%	0	72.7%	100%
HIV	1	1	9	11
	9.1%	9.1%	81.8%	100%
Balanoposthitis	1	1	1	3
	33.3%	33.3%	33.3%	100%
Not applicable	13	11	41	65
	20%	16.9%	63%	100%
Total	**148**	**46**	**306**	**500**
	29.6%	**9.2%**	**61.2%**	**100%**

Among the 50 patients in whom spouse assessment was done. Spouse of 3 patients presented with balanoposthitis. Among 3 patients one had abnormal cervical cytology (33.3%).

Among the 8 spouse who presented with uretheral or genital discharge 2 (25.20%) patients had abnormal cervical cytology.

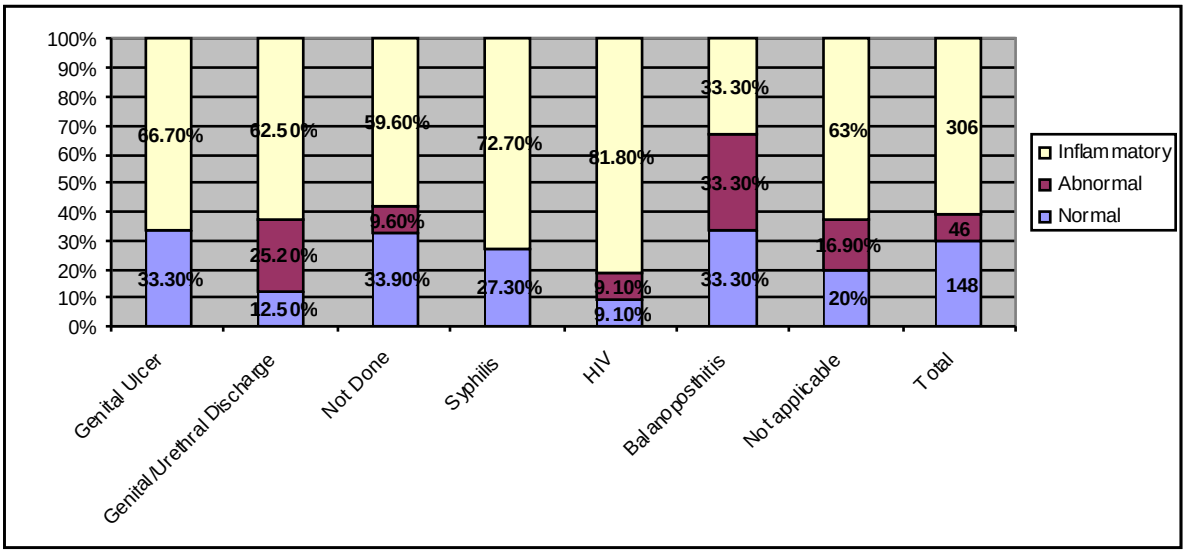

Fig 8: Diagnosis of spouse

TABLE-3.2: SHOWS HUSBAND WITH EXTRAMARITAL CONTACT

	Normal	**Abnormal**	**Inflammatory**	**Total**
Absent	119	4	261	384
	30.9%	1%	68%	100%
Present	4	6	5	15
	26.6%	40%	33.3%	100%
Unknown	10	9	21	40
	25%	22%	52.5%	100%
Not Applicable	14	27	20	61
	22.9%	44.2%	32.7%	100%
Total	**148**	**46**	**306**	**500**
	29.6%	**9.2%**	**61.2%**	**100%**

In husband of patients having extramarital contact out of the 15 assessed, 6 were found to have abnormal cervical cytology. The abnormality is 1% in the patient who's husband have no extramarital contact

4. SEXUAL HISTORY

TABLE-4.1: SHOWS MARITAL STATUS OF THE STUDY POPULATION

Marital status	Normal	Abnormal	Inflammatory	Total
Group 1	135	35	265	435
	31%	8%	60.9%	100%
Group 2	13	11	41	65
	18%	16.9%	63.1%	100%
Total	**148**	**46**	**306**	**500**
	29.6%	**9.2%**	**61.2%**	**100%**

Group 1: Living with the spouse

Group 2: Patient including CSW, Widowed, Divorced separated.

Not living with the spouse includes, commercial sex workers, Widow, divorced and separated group of patients. The group 2 patients had the increased abnormal cervical cytology (16.9%) compared with the 8% of patients in group 1 (435 Nos)

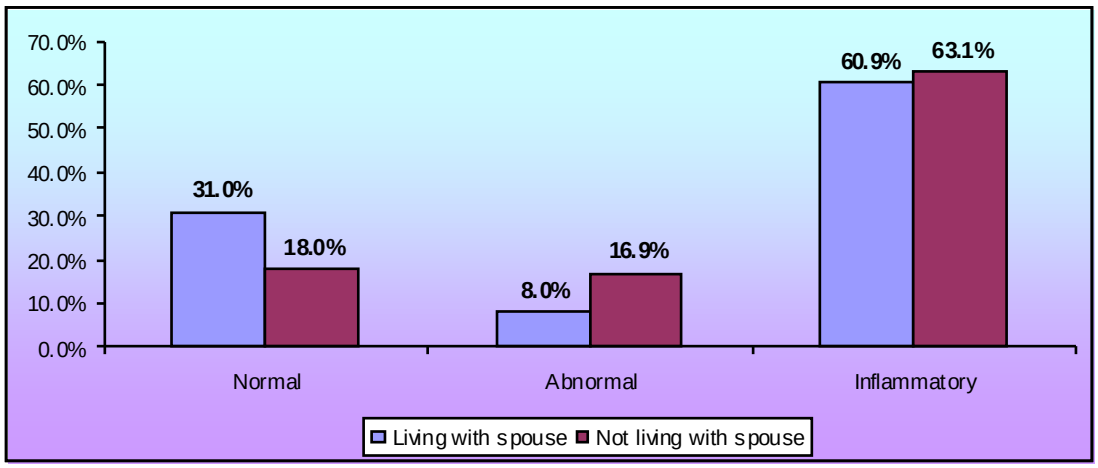

Fig 9: Shows Marital Status of the study population

TABLE-4.2: ASSOCIATION OF PAP SMEAR ABNORMALITY WITH THE NO. OF PARTNERS

No. of Partners	Normal	Abnormal	Inflammatory	Total
Single	136	29	254	419
	32.5%	6.9%	60.9%	100%
Multiple	12	17	52	81
	14.8%	21.0%	64.2%	100%
Total	148	46	306	500
	29.6%	9.2%	61.2%	100%

Abnormality of pap smear found to be associated more with the patients having multiple partners (21%) than patients having single partners (6.9%).

The association is found to be significant ($P<0.05$).

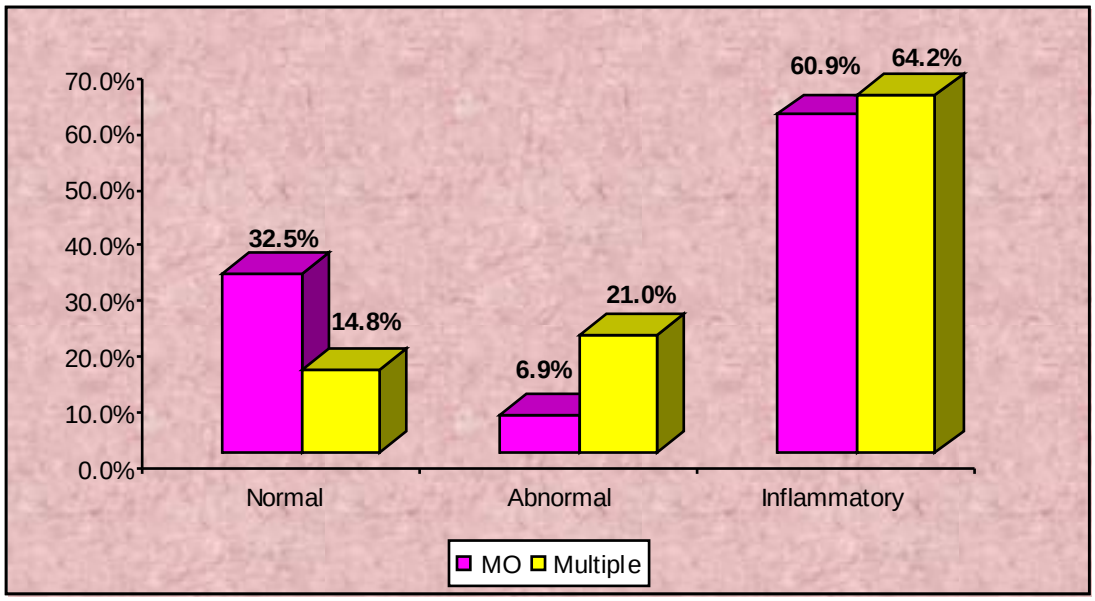

Fig 10: Shows the pap smear findings among patients having multiple partners & single partners

TABLE-4.3: ASSOCIATION WITH SEXUAL HISTORY

Sexual history	Normal	Abnormal	Inflammatory	Total
Pre-marital contact	4	9	28	41
	8.3%	22%	68%	100%
Extra marital contact	11	9	20	40
	27.5%	22.5%	50%	100%
Previous venereal disease	1	0	1	2
	50.0%	0	50.0%	100%
Nil	132	28	257	417
	32.2%	6.8%	61.0%	100%
Total	**148**	**46**	**306**	**500**
	29.6%	**9.2%**	**61.2%**	**100%**

Majority of abnormal pap smear results correlated with the patients having history of extramarital contact (22.5%). next with the patients having history of premarital contact (22%) Patients with history of previous venereal disease have 50% inflammatory pap smear finding.

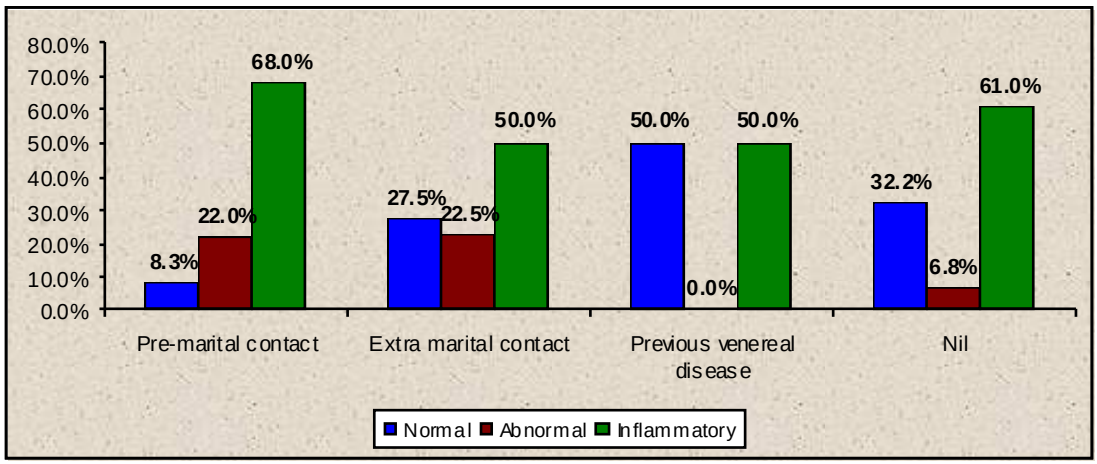

Fig 11: Pap smear finding among study population having history of Pre-Marital contact, Extra-Marital and Previous Venereal disease

5. EXAMINATION FINDINGS

TABLE-5.1: PREVALENCE OF CERVICAL EROSION AMONG ABNORMAL PAP SMEAR

Per speculum Examination	Normal	Abnormal	Inflammatory smear	Total
Discharge	26	4	49	79
	32.9%	5.1%	62.0%	100%
Erosion	30	24	97	151
	19.9%	15.9%	64.2%	100%
Growth	2	0	2	4
	50%	0	50%	100%
Nil	90	18	158	266
	34.9%	5.6%	64%	100%
Total	**148**	**46**	**306**	**500**
	29.6%	**9.2%**	**61.2%**	**100%**

On speculum examination of the attendees of STD clinic, Erosion was found to be significantly associated with abnormal pap smear (15.9%). Cervical or vaginal discharge is found in 5.1% of the abnormal pap smear. This association were found to be statistically significant ($P<0.05$).

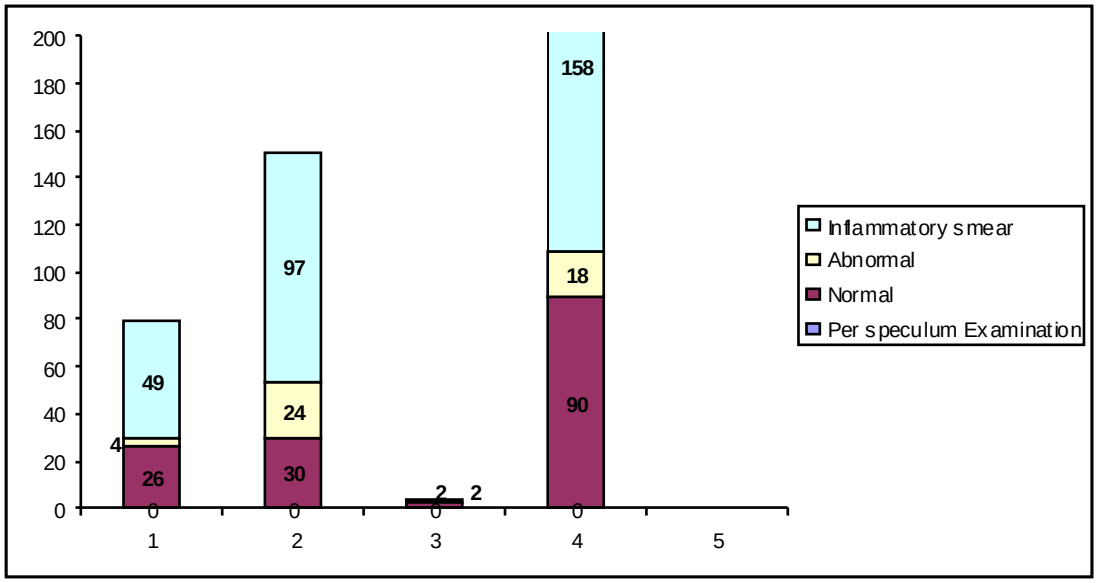

Fig 12: Shows per speculum examination finding in the study population

6. DIAGNOSIS

TABLE-6.1: PREVALENCE OF ABNORMAL PAP SMEAR AMONG VAGINAL DISCHARGE

Diagnosis	Normal	Abnormal	Inflammatory	Total
STD	42	33	144	219
	19.1%	15%	65.7%	100%
Others	36	11	82	129
	27.9%	8.5%	63.5%	100%
Non Venereal	70	2	80	152
	46%	1.3%	52.6%	100%
Total	**148**	**46**	**306**	**500**

Abnormal pap smear most commonly associated with sexually transmitted disease (15%). Non venereal disease are only 1.3% associated. This association is found to be significant in Chisquare tests.

Next to the STD, other causes like cervicitis and Lower abdominal pain are associated with 8.5% abnormal smears.

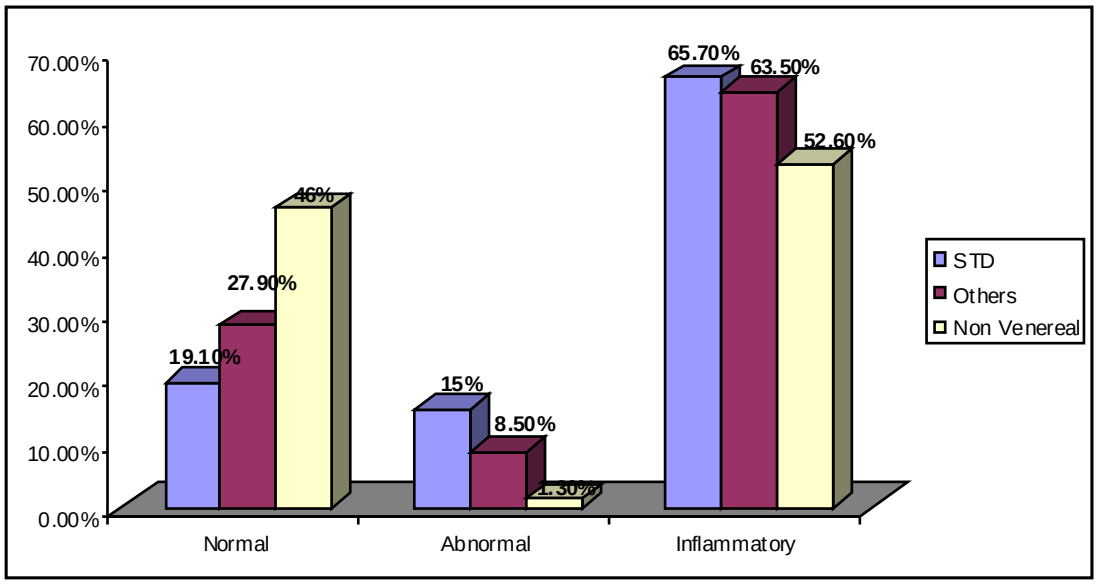

Fig 13: Diagnosis of the Study population

TABLE-6.2: PREVALANCE OF ABNORMAL PAP SMEAR AMONG VAGINAL DISCHARGE

Diagnosis	Normal	Abnormal	Inflammatory	Total
Bacterial vaginosis	5	17	63	85
	5.6%	20%	75.1%	100%
Candidiasis	6	3	15	24
	25%	12.5%	62.5%	100%
Trichomonas Vaginalis	7	0	16	23
	30.4%	0%	69.5%	100%
Other Vaginal Discharge	15	10	29	54
	28%	18.5%	53.7%	100%
Other STD's	9	3	21	33
	27.2%	9%	63.6%	100%
Other (Cervicitis and Lower abdominal Pain)	36	11	82	129
	27.9%	8.5%	63.5%	100%
Non Venereal	70	2	80	152
	46.1%	13.1%	52.6%	100%
Total	**148**	**46**	**306**	**500**

The most common STD seen among abnormal Pap smear is bacterial vaginosis (20.0%) next is the vaginal discharge syndrome (18.5%). Other clinical diagnosis most commonly associated with abnormal pap smear in the order of frequency are candidiasis (2.5%). No abnormalities has been detected in Trichomonas vaginalis.

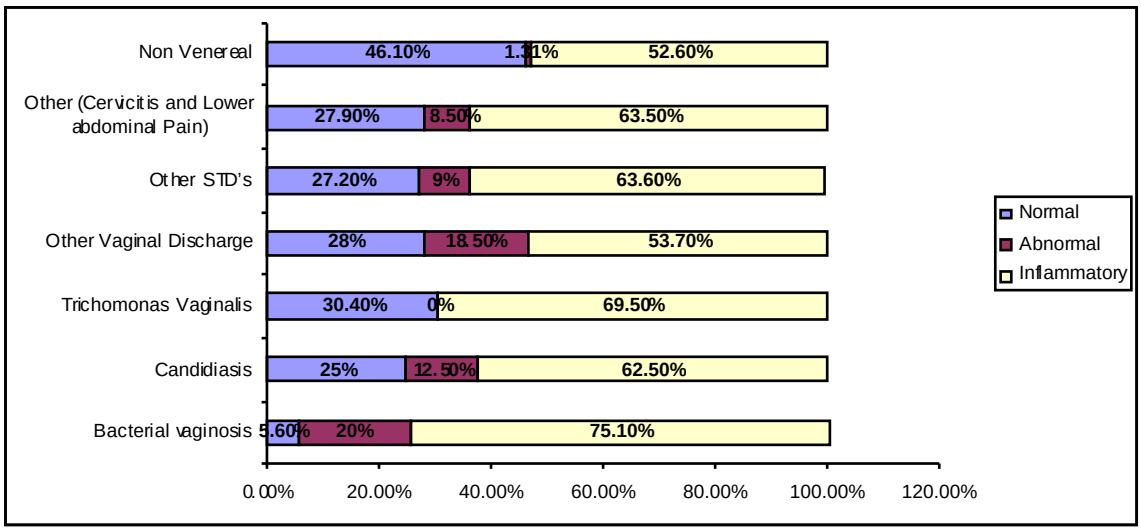

Fig 14: Shows STD Among study group

TABLE-6.3: PREVALANCE OF ABNORMAL PAP SMEAR AMONG OTHER STD's

Diagnosis	Normal	Abnormal	Inflammatory	Total
HSV	3	2	9	14
	21.4%	14.2%	64.2%	100%
HIV	1	1	11	13
	7.6%	7.6%	84.6%	100%
Syphilis	4	0	0	4
	100%	0	0	100%
Anogenital Warts	1	0	1	2
	50%	0	50%	100%
Other (Cervicitis and Lower abdominal Pain)	36	11	82	129
	27.9%	8.5%	63.5%	100%
Non Venereal	70	2	80	152
	46%	1.3%	52.6%	100%
Vaginal discharge syndrome	33	30	123	186
	17.7%	16.1%	66.1%	100%
Total	**148**	**46**	**306**	**500**

Other than vaginal discharge syndromes and Other STD's associated with abnormal pap smear in the order of frequency are Herpes Simplex (14.2%) HIV (7.6%) Cervicitis (8.5%)

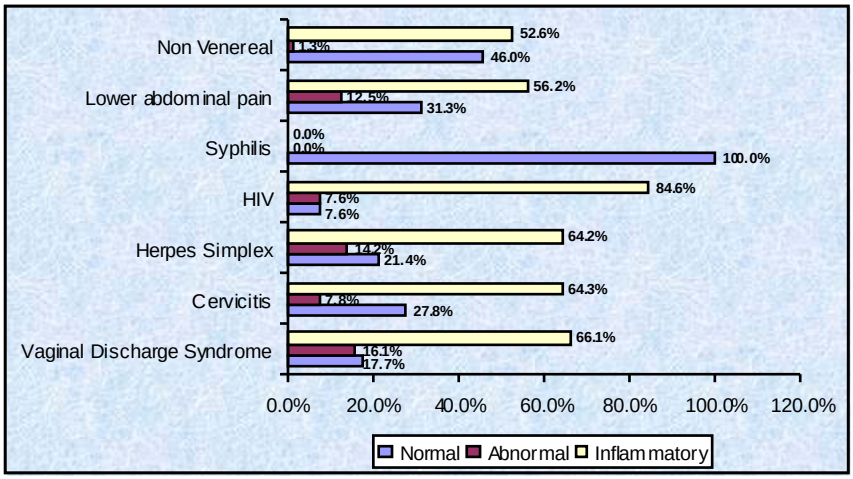

Fig 15: prevalence of various STDs

TABLE- 6.4: SHOWS PREVALENCE OF ABNORMAL FINDING AMONG VARIOUS PRESENTING COMPLAINTS.

Presenting Complaints	Normal	Abnormal	Inflammatory	Total
Asymptomatic	81	7	135	216
	37.5%	3.2%	62.5%%	100%
Vaginal Discharge	33	30	123	186
	17.7%	16.1%	66%	100%
Itching Genitalia	6	2	8	16
	37.5%	12.5%	50%	100%
Warty Growth	1	0	1	2
	50%	0	50%	100%
Syphilis	4	0	0	4
	100%	0	0	100%
Dysparunia	1	0	0	1
	100%	0	0	100%
Pain Abdomen	7	1	4	12
	58.3%	8.3%	33.3%	100%
Others	14	0	0	14
	100%	0	0	100%
Genital ulceration	3	2	9	14
	21.4%	14.2%	64.2%	100%
Infertility	0	0	8	8
	0	0	o100	100
Contact Tracing	2	4	5	11
	18.2%	36.4%	45.5%	100%
Bartholin's Cyst	1	0	1	2
	50%	0	50%	100%
Low Back ache	0	0	1	1
	0	0	100%	100%
HIV test	1	1	11	13
	7.6%	7.6%	84.6%	100%
Total	**148**	**46**	**306**	**500**
	29.6%	**9.2%**	**61.2%**	**100%**

REASON FOR ATTENDING THE STD OPD

Among the 46 patients of abnormal cytology in this study 2 (4%) patients presented with genital ulceration. 4 (8%) patients attended for contact tracing, 30 (62.5%) patients, presented with vaginal discharge, 7 (15.2%) patients are asymptomatic, 2 patients (4%) presented with itching genitalia.

DISCUSSION

During the study period, 500 patients were enrolled for pap smear study.

The percentage of normal pap smear study among the attendees was 29.6%. The prevalence of the abnormal cervical cytology among the attendees of female STD op were found to be 9.2% (95% C.I). The inflammatory smear constitutes about 62.1% In STD clinics, various studies have reported a prevalence rates of squamous intra epithelial lesions or dysplasia ranging from 5% to 11%. This prevalence is reasonably more than the other family clinics.

This study was comparable with the study done by Feldman et al[90] in which 7% had abnormal cervical cytology. This was also comparable with the study done by Kanno MB et al[93] in which 5.7% of the satisfactory specimens were abnormal. This was also comparable with the study done by RM Briggs et al[92] in which 11.4% of prevalence of screening abnormalities consistent with CIN. This study was comparable with the study of Feldman et al[90] and Edel man et al[91]. This study was also comparable to study done

by Shlay JC et al[94] in which a typical cells (12.6%) prevalence is within the range of the study.

Among the 46 abnormal pap results 3 (6%) womens had High grade squamous intra epitheial lesion. 4(8.6%) womens had findings favouring malignancy. 6(13%) womens had low grade squamous intra epithelial lesions. 33 women had atypical squamous cells of undetermined significance.

This study was consistent with Edelman et al[91] in which 9.9% had cytology consistent with ASCUS, of which 2.5% is LSIL.

The prevalence percentage may vary depending on the group studies. In this study in addition to the high risk group, normal population has also been included as they are referred for HIV screening from other departments for surgical procedures.

Among the abnormal pap smear results. 6.6% belong to atypical cells, 8.6% belong to carcinoma, 6% of High grade squamous intra epithelial lesion. Low grade squamous intra epithelial lesion seen in 6(13%) patients.

This results are comparable to the study done by Lawley TB, Lee RB, Kapela R et al[95] in which atypical cells are 7.8%, HSIL is 4.1% and LSIL is 15.5%.

Inflammatory smear is seen in 306 patients out of 500 patients. This constitutes 62.1%. This is consistent with the study done by Lawley TB et al[95] in which the reactive changes were noted in 67.5%. This study is also comparable to the study done by Gupta Ashami et al[96] in which inflammatory cytology is noted in 53%.

Among the inflammatory smear (306) monocytes were found in 7.6%, and neutrophils were found in 11.8% of cases. This may represent Acute on the chronic infections.

SOCIO DEMOGRAPHIC FEATURES:

Age: Table 2.1

The prevalence of abnormal pap smear study were found to be greater in women 26-35 years of age (11.4%) than in the women greater than 35 years of age. Another peak was found in age group >45(16.9%).This represents bimodal age distribution of abnormal cervical cytology. As all the STI, are found to be greater in the reproductive age group. This study also shows the prevalence of abnormal pap smear higher among the reproductive age group. This is comparable to the study done by Schewbke JR et al[97] in which study they also found pap smear abnormality more in the age group of 20-39 year (23%). Also consistent with study done by Manjit et al[106] in which mean age of LSIL is 32.3 years and mean age of HSIL 40 years.

In this study, abnormal pap smear prevalence were found to be greater among urban population (8.0%) than rural population (4.4%).

This study was done in Institute of Venerology, Madras Medical College, Chennai. This association may not be significant as most of our study population belong to urban areas.

Occupation: Table 2.3

The pap smear abnormality were found to be greater among CSW (17.6%) than other groups. Next, Housewives form the major group in this study (8.9%). The prevalence of inflammatory cervical cytology among this group were found to be 67.1%. Next major group belong to Coolie 60.3%. This is comparable to the study done by RM Briggs in which CIN increase with the rise in the number of partners.

Out of the 51 commercial sex workers included in this study 10 (19.6%) of them had abnormal pap smear. 32 (19.6%) of them had inflammatory smears. 9(17.6%) of them had normal study in pap smear. This is consistent with study done by Gitsh G et al[98]. in which increase prevalence among prostitutes were found.

Socio Economic Status: Table 2.4

Abnormal pap smear cytology were found to be associated with lower and middle socio-economic group (9.3%) than high income group (7.1%). This is in concordance with Feidman MJ et al[91] study in which it is 7%.

Educational Status: Table 2.5

11.8% of the illiterate women and those who were in primary education level included in this study had abnormal cervical cytology. This observation was concordance with the study conducted by Lyttle H[99] in which there was increased rate of abnormal pap smear study among lower educational status.

Method of contraception: Table 2.6

Abnormal cervical cytology was present in 11.8% of patient using oral contraceptives pills (11.8%) next higher prevalence seen in patients who doesnot used any contraception

Number of Partners: Table 3.1

The abnormal pap smear cytology was found to directly related to the number of partners. Among the 46 abnormal pap smear 17 (36%) patients had multiple partners. Of them 36% had Abnormal pap smear results. In women having multiple partners the abnormal cytology were found in 67.8%. This is in concordance

with the pilot study done by Lyttle H et al[99] in which they found that the abnormal cytology rate increases with increasing no of sexual partners. In this study 40 (8%) of patients had extra marital contact. Out of 40, 9 patients had abnormal cervical cytology. In this study we found that the inflammatory cytology were more common with the increasing years of married life.

History of pre marital and Extra marital contact: Table 3.2

In this study, the abnormal cervical cytology is present in 18/46 (39.1%) patients who have the H/o of premarital or extra marital contacts. This was comparable with the study done by Gupta Ashima et al[96] in which 24% had history of extramarital contact.

Martial Status: Table 3.3

Abnormality of pap smear cytology were found to be greater among women not living with the spouse (82.0%). This may be attributed to the increased number of sexual partners among the women not living with the spouse rather than women living with the spouse.

Spouse Assessment: Table 4

In this study, spouse assessment has been done for 50 cases, out of which 3 patients presented with balanoposthitis, 14 patients with the HIV anti body positivity. 4 patients with VDRL reactivity.

In this study we found that the pap smear abnormality is more in the women who have more than 3 children (17%) and in women who had married at an early age. In this study we found increased number of abnormality with increasing years of married life. 14.3% of patients married since 10-15 years had abnormal cytology.

In this study maximum number of patients have undergone permanent sterilization.

Examination

On speculum examination, among the 46 abnormal smears, 4(8.6%) patients presented with cervical discharge. 64.2% presented with cervical erosion. Cervical erosion is the most consistent finding associated with abnormal cervical cytology.

Diagnosis:

In this study we found that 16(34.7%) cases out of 46 cases having abnormal cervical cytology has been found to be associated with sexually transmitted diseases .

In this study, the most common condition associated with abnormal cervical cytology was bacterial vaginosis 17/46 (36.9%) next was the other vaginal discharge (negative for TV, candida and BV) was found in 10(28.2%)patients. Others are cervicities and lower abdominal pain 11/46 (23.9%).

Out of 80 patients diagnosed as non venereal conditions only 2 (4.3%) had abnormal cervical cytology .This difference was statistically significant with p valve < 0.05.

This is consistent with study done by shlay et al[94] and lawley et al[95] in which vaginal discharge is found in 60% of patients. The prevalence of STD among CIN is 71.7%. The prevalence of STD among benign findings are 40%.

This is consistent with the study done by campbell et al[100] in which the prevalence of STD among CIN is 78% and among benign is 46%.

SUMMARY

In this study the following observation has been made.

1) In this study the prevalence of abnormal cervical cytology was found to be 9.2% . Among the 48 abnormal cytology smears, 4 patients had carcinoma (8.6%),3 patients had HSIL (6.5%),6 patients had LSIL(13.0%) and 33 patients(6.6%) had atypical cells on cytology among 500 patients.

2) Among the 46 cases of abnormal cytology 22(47.8%) patients belonged to the age group of 26 -35 and 12(26%) patients belonged to the age group of >45 . Bimodal age distribution of abnormal cervical cytology has been noted

3) 43.4% of women who had abnormal cytology reside in urban area.

4) 18 (39%)patients out of 46 patients found to have abnormal cervical cytology were housewives.12 (26%) patients were coolie.

5) 86% of the 46 women with the abnormal cervical cytology belonged to low and middle income group.

6) Among 46 patients ,29 (63%) women were in the primary education level .

7) Women having more than 3 children had increased prevalence (17%) of abnormal cervical cytology ,as compared with the women having 2 children (9%).

8) Women with multiple partners had increase prevalence of abnormal cytology (21%) compared to the women who had single partner(9%)

9) Out of 17 patients, who had been on OCP pills for contraception 11.7% had abnormal pap smear incontrast , 2 patients who practiced barrier contraception both(100%) had normal cervical cytology reading. In this study maximum number of patients under gone permanent sterilization.

10) Prevalence of abnormal cervical cytology is more among women with increasing years of married life .out of 46 women 21 (45.6%) had been married since more than 15 years and 13 (28.2%) of them had been married since 10 - 15 years.

11) On spouse assessment genital ulcer (4.3%) and balanoposthitis (2.1%) were found to be associated with abnormal cytology of their partners.

12) Among 15 women whos spouse had extra marital contact 6 (40%) of them had abnormal cervical cytology in contrast in women with the spouse with no extra marital contact only 1% had abnormal cervical cytology . This is found to be statistically significant .

13) Abnormal cervical cytology was found to be greater among women who are not living with the spouse 16.9% compared to the women living with the spouse 8%. Women not living with the spouse include commercial sex workers,widowed ,separted and divorced.This increased prevalence in this group may be attributed to multiple partners in them.

14) In this study 9 women were referred through their male partner to our STD OPD ,among them 4 (44.1%)had positive findings for abnormal cervical cytology

CONCLUSION

- In this study we found 9.2% of prevalence of abnormal cervical cytology and inflammatory pap smear were found in 61.2%. Hence the yield of screening in STD clinics will be higher in STI clinics, than in other clinics.

- The risk factors found to be associated with abnormal cervical cytology includes reproductive age group, lower socio-economic and lower educational status, multiparity, multiple partners, associated other sexually transmitted diseases.

- Early screening and detection of dysplasia will reduce the morbidity and mortality associated with carcinoma cervix.

- Inflammatory pap smear were found to be 62.1%. This inflammatory pap smear warrants, repeated pap smear after treating the infection followed by repeat pap smear in 3 months, and 6 months. Persistant inflammatory cytology warrants further investigations and follow up.

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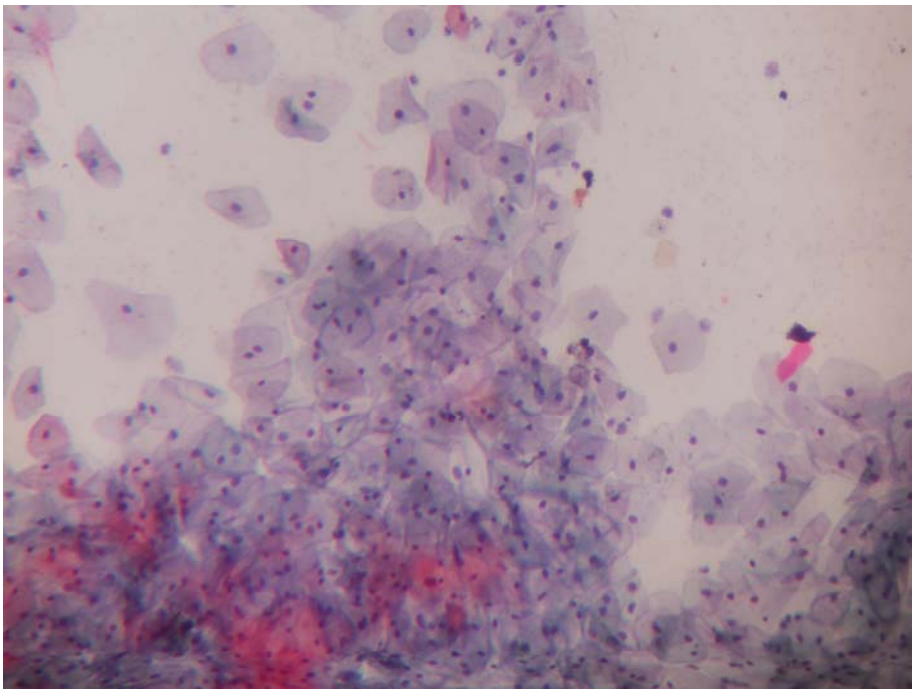
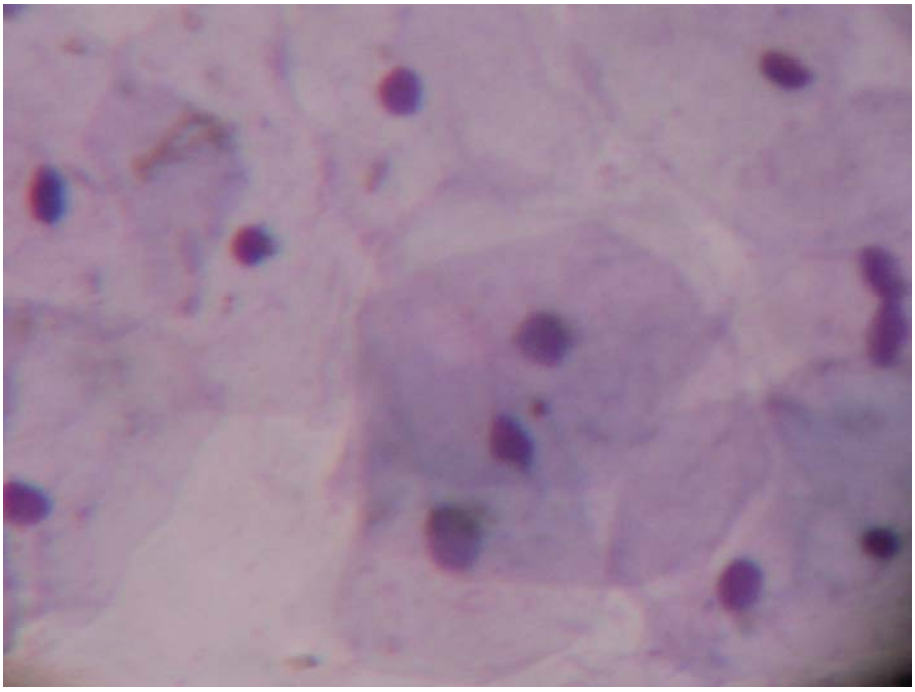
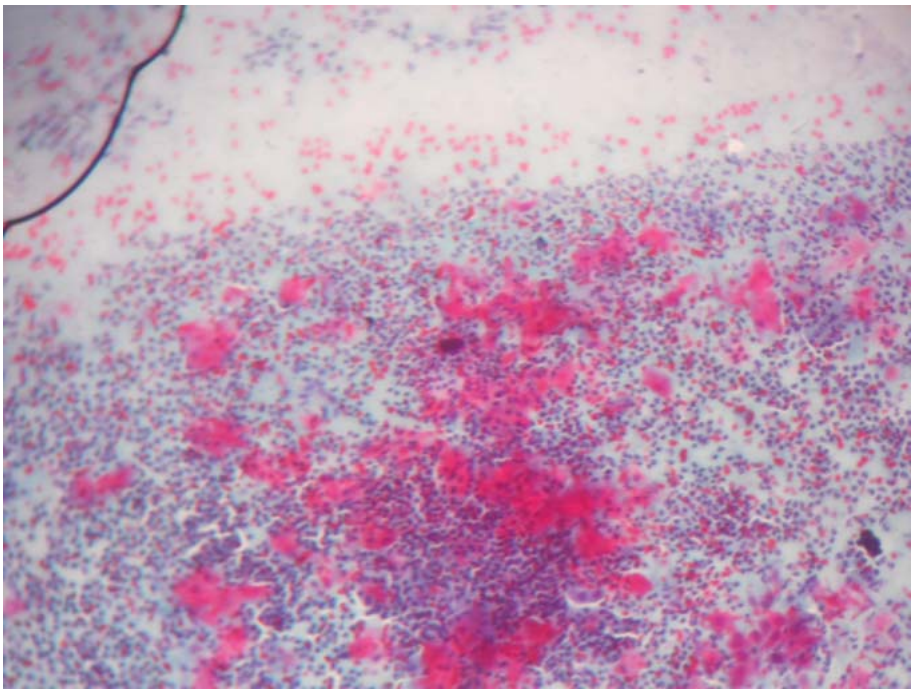
Squamous Cells in Low Power view with Inflammatory Background



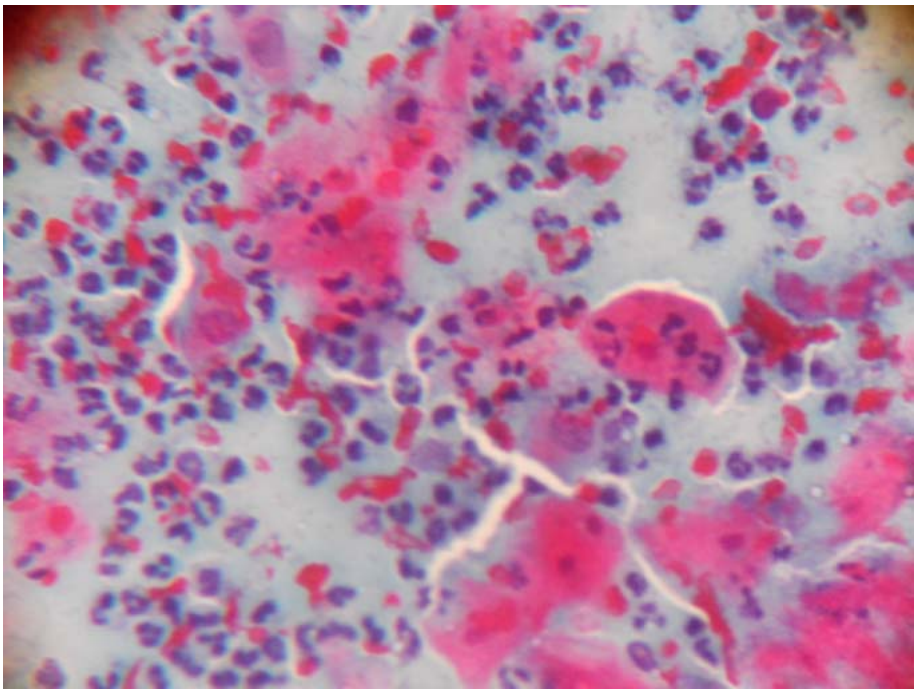
Squamous Cells in High Power



Inflammatory Smear in Low Power



Inflammatory Smear with Predominant Neutrophsis in High Power



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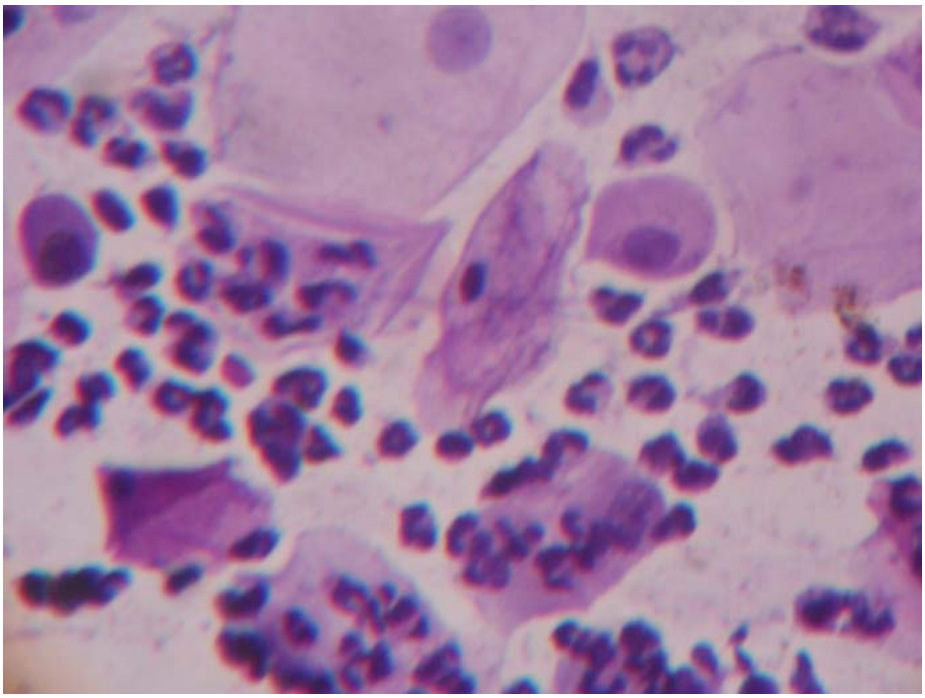
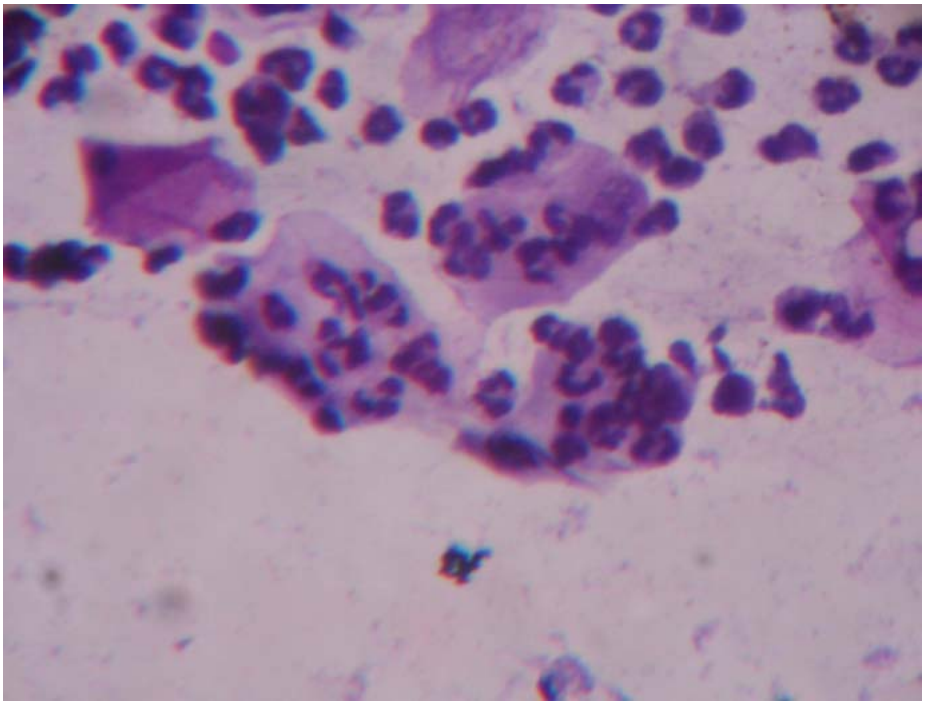
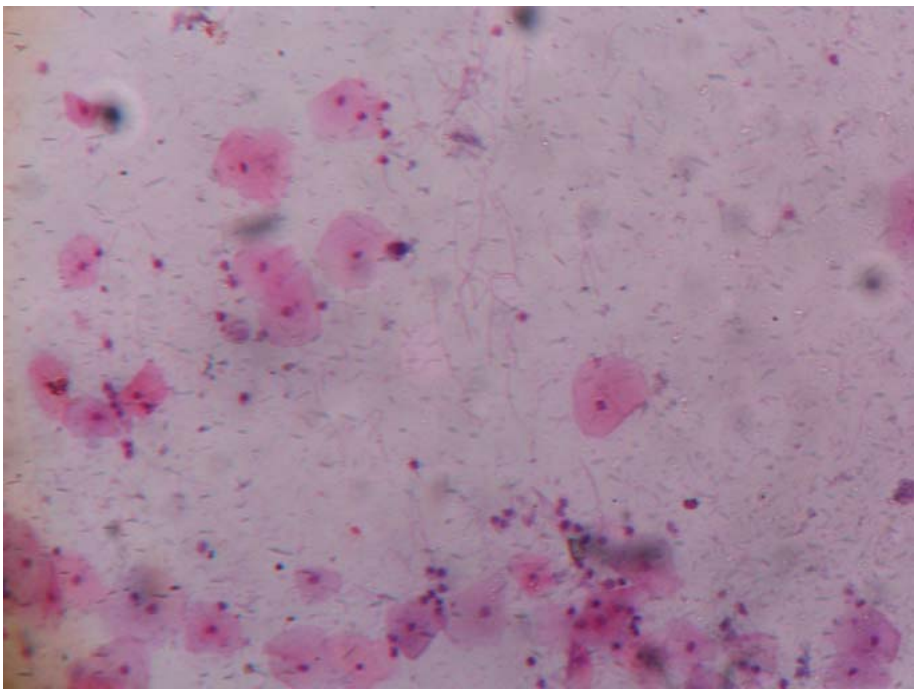


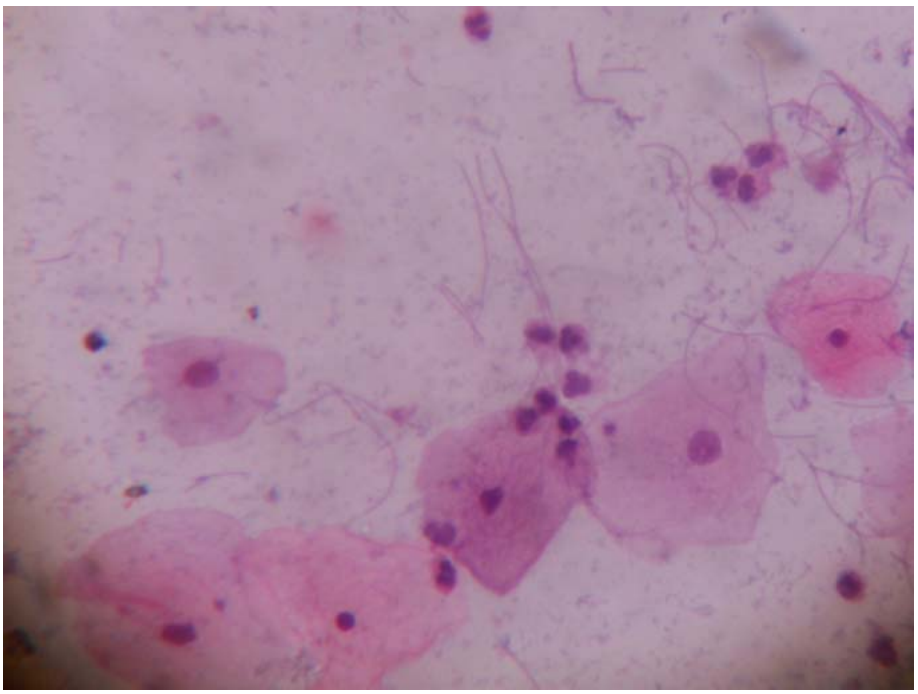
Clue Cells



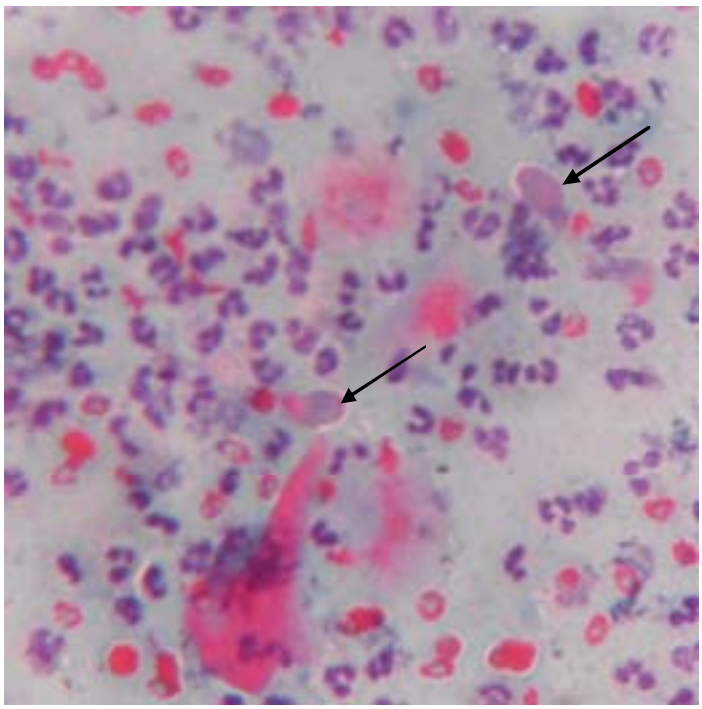
Candidal Pseudohyphae in Low Power



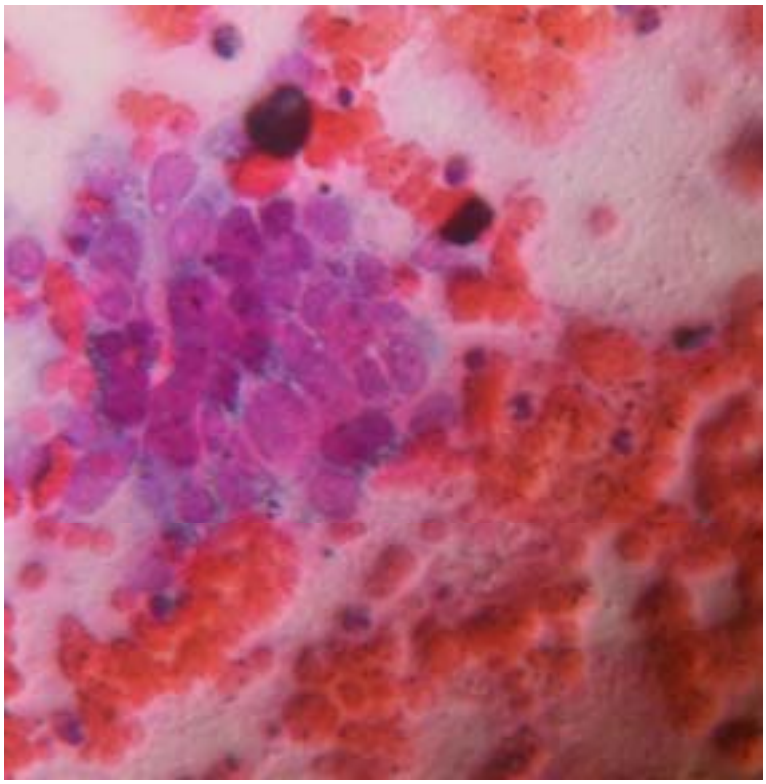
Candidal Pseudohyphae in High Power



Trichomonas Vaginalis



Malignant Cells



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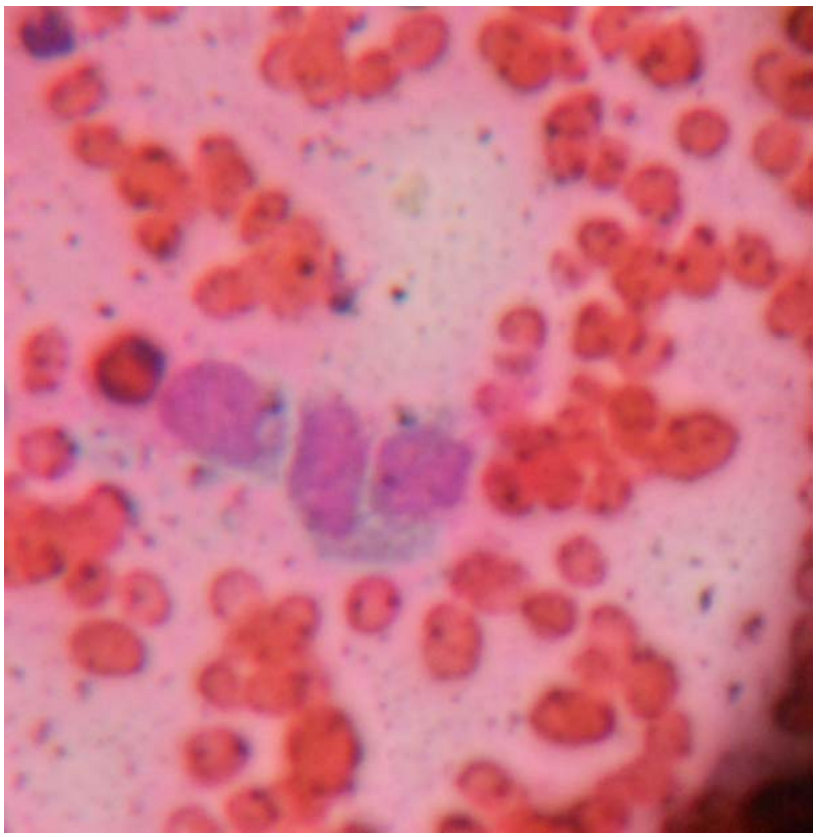
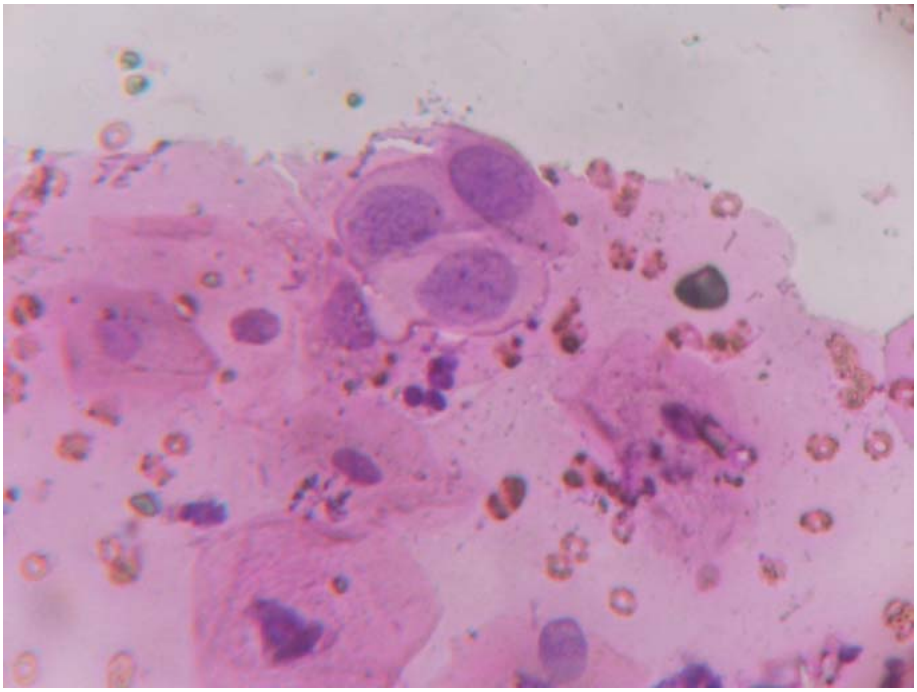
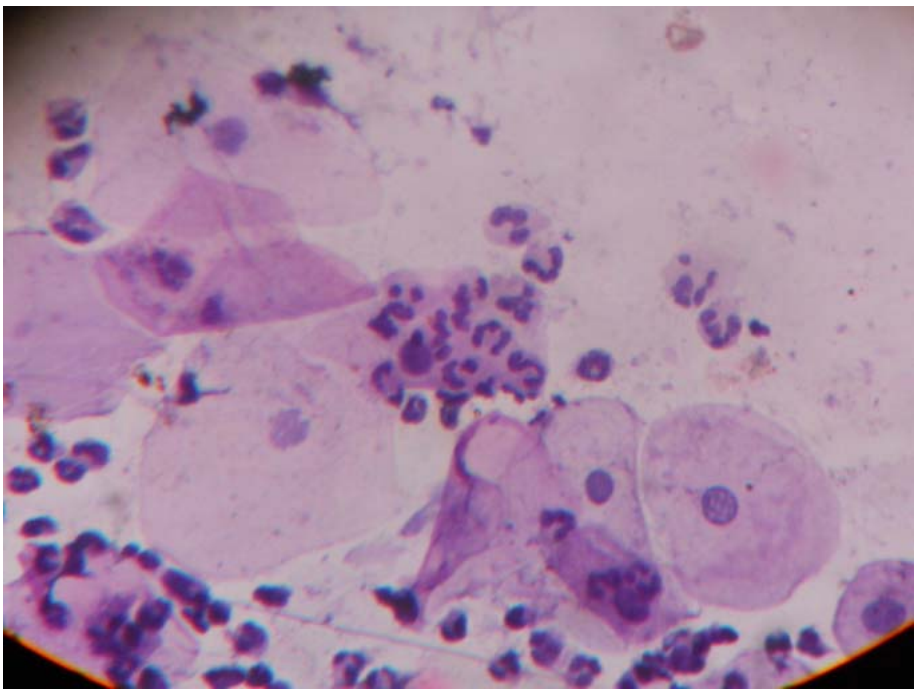


Atypical Cells



Normal squamous cells



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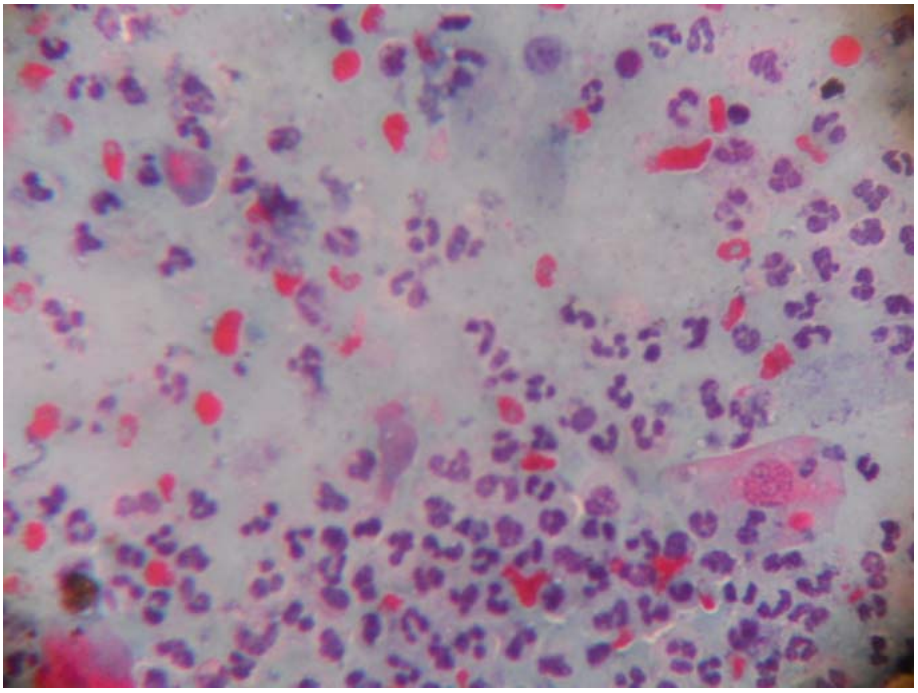
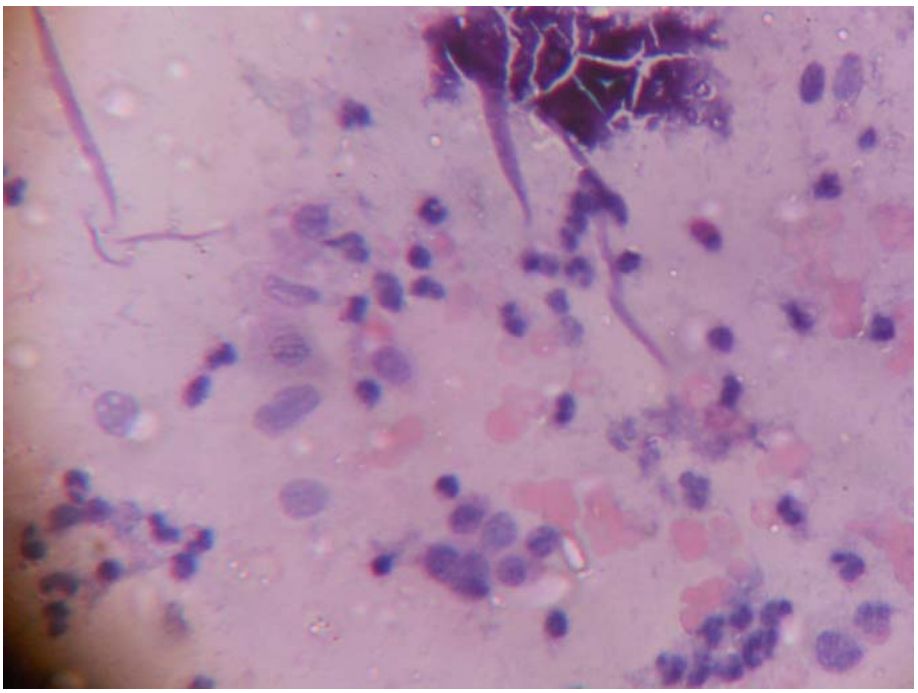


Atypical Squamous Cells of Undetermined Significance



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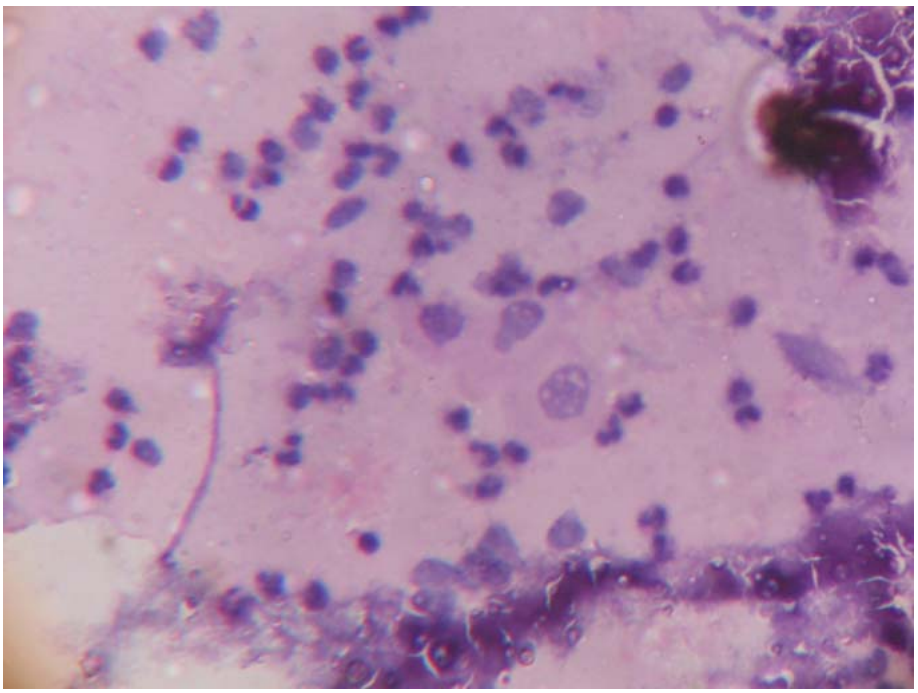

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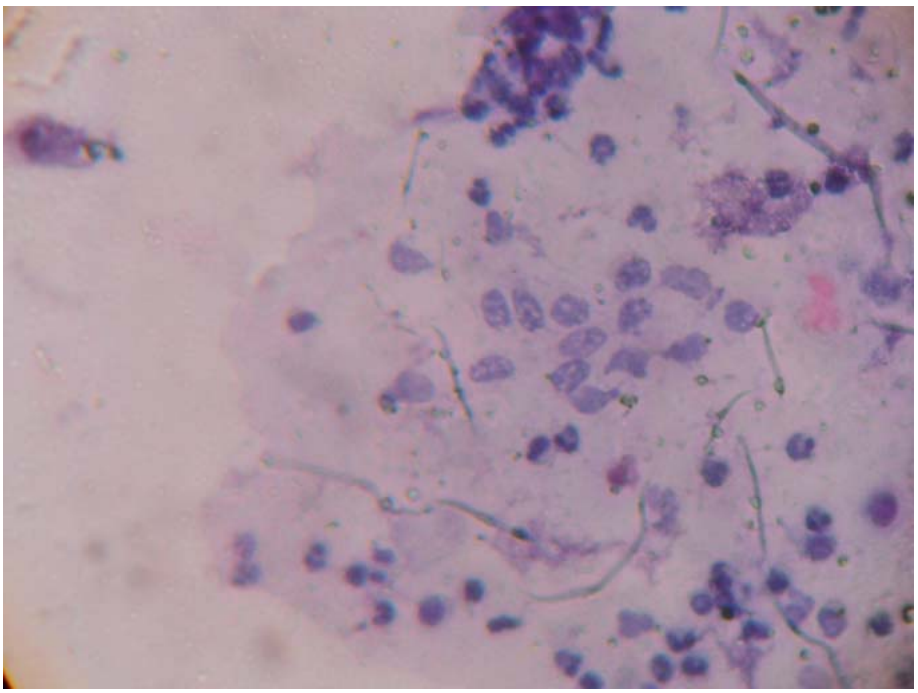
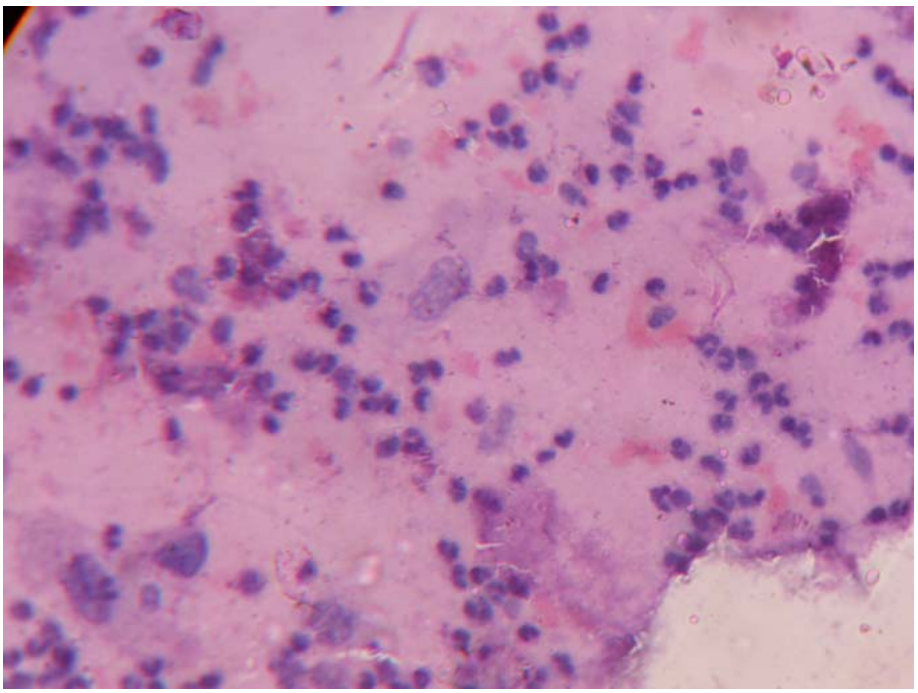
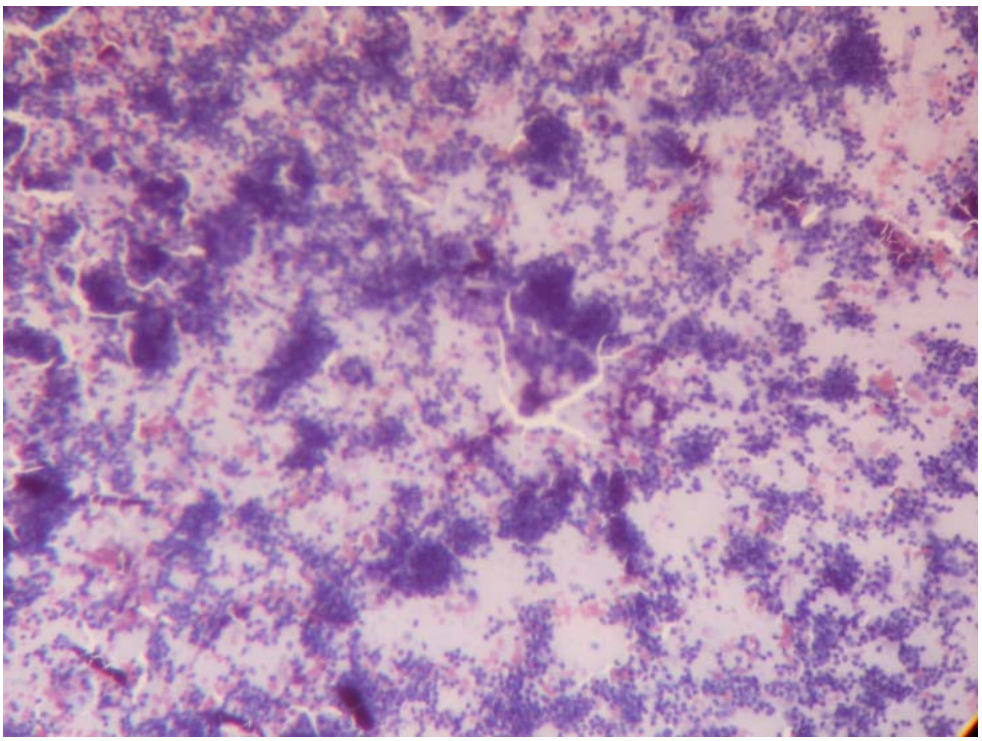


SINGLE A YPICAL CELL

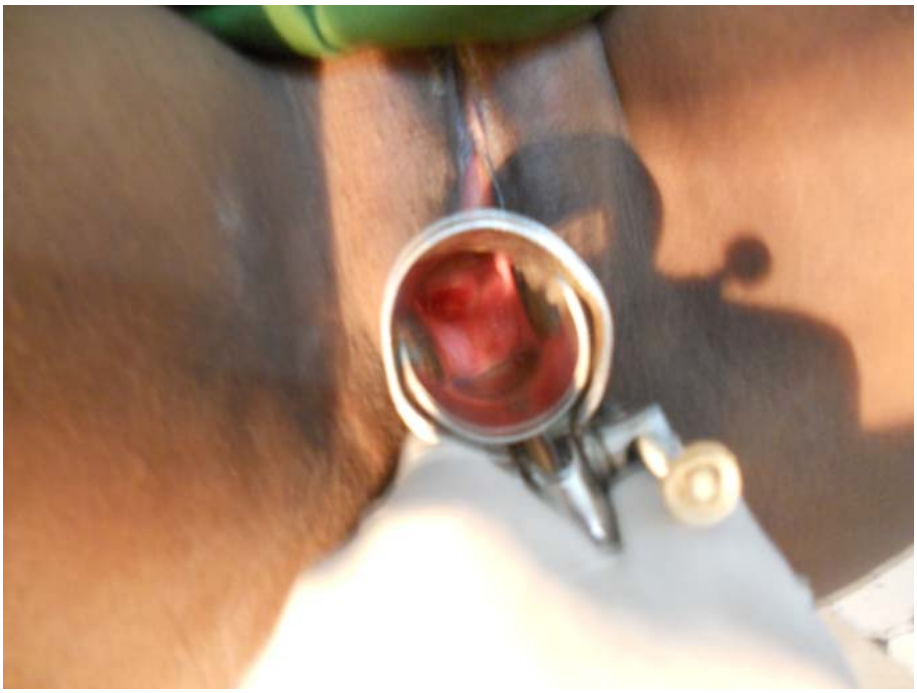


Tumour Diathesis

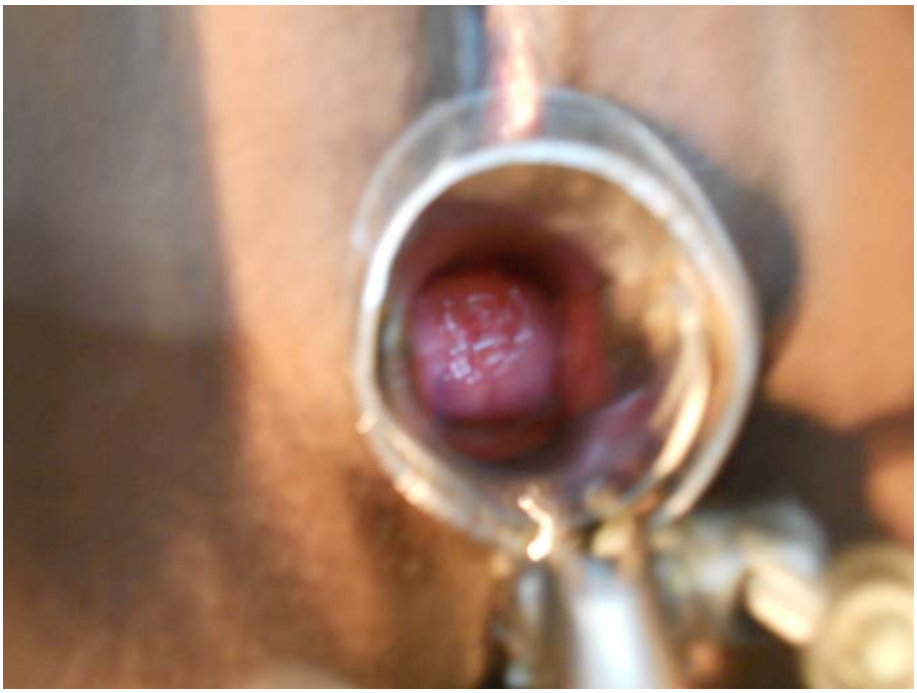


Rapid Pap Staining Procedure

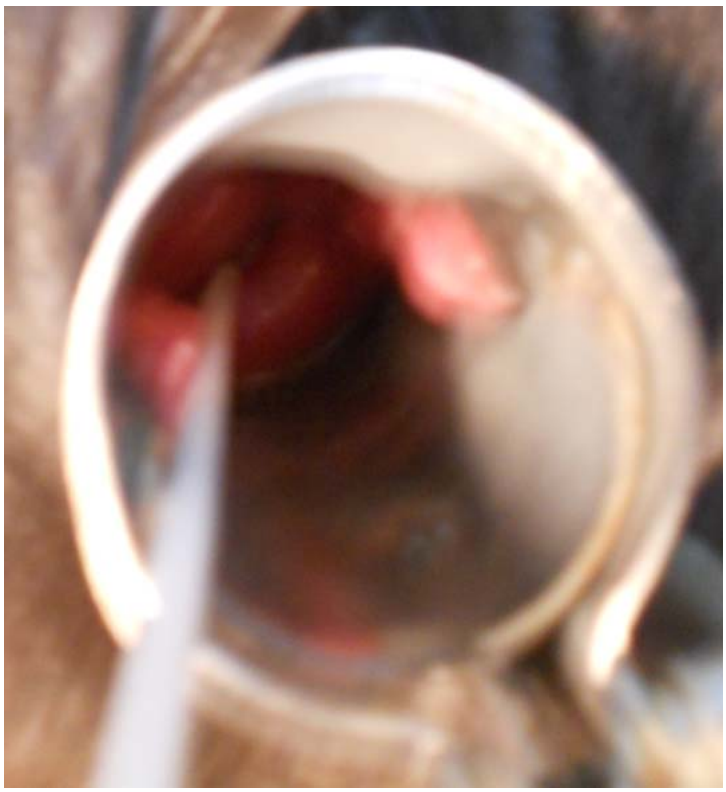
Cervicities



Cervical Erosion on Speculum Examination



Cytobrush in Situ



Mucopurulent cervicitis

Cervical Erosion

Pap Smear Staining Kit

Pap Smear Kit (Cyto Brush, Ayre's Spatula)

PATIENT CONSENT FORM

Title of the study:- "A Study on prevalence of abnormal cervical cytology using PAP smear as a screening procedure among the attendees of female STD OPD".

Name of the Participant:

_____.

Name of the Principal (Co-Investigator):

Name of the Institution: Rajiv Gandhi Government General Hospital, Chennai.

Documentation of the informed consent

I _____ have read the information in this form (or it has been read to me). I was free to ask any questions and they have been answered. I am over 18 years of age and, exercising my free power of choice, hereby give my consent to be included as a participant in the study..

1 I have read and understood this consent form and the information provided to me.

2 I have had the consent document explained to me.

3 I have been explained about the nature of the study.

4 My rights and responsibilities have been explained to me by the investigator.

5 I agree to cooperate with the investigator and I will inform him/her immediately if I suffer unusual symptoms.

6 I have not participated in any research study within the past _____month(s).

7 I am aware of the fact that I can opt out of the study at any time without having to give any

8 reason and this will not affect my future treatment in this hospital.

9 I hereby give permission to the investigators to release the information obtained from me as result of participation in this study to the sponsors, regulatory authorities, Govt. agencies, and IEC. I understand that they are publicly presented.

10 My identity will be kept confidential if my data are publicly presented

11 I am aware that if I have any question during this study, I should contact at one of the addresses listed above. By signing this consent form I attest that the information given in this document and the HIV consent form has been clearly explained to me and apparently understood by me, I will be given a copy of this consent document.

Participant's Initials:

_____

For adult participants:

Name and signature / thumb impression of the participant
(or legal representative if participant incompetent)

_____ _____ _____

Name Signature Date

Name and Signature of impartial witness (required for illiterate patients):

_____ _____ _____

Name Signature Date

Address and contact number of the impartial witness:

Name and Signature of the investigator or his representative obtaining consent:

_____ _____ _____

Name Signature Date

Information to Participants

(This is only a guideline – Relevant changes to be made as per the study requirements)

Sponsor (if any) : NO

Investigator

(principal and at least one Co-investigator)

Name of Participant : -

Title: "A Study on prevalence of abnormal cervical cytology using PAP smear as a screening procedure among the attendees of female STD OPD"

You are invited to take part in this study. The information in this document is meant to help you decide whether or not to take part. Please feel free to ask if you have any queries or concerns.

You are being asked to participate in this study being conducted in Department of STD, Institute of Venereology, Madras Medical College, Chennai-3.

What is the Purpose of the Research (explain briefly):

The annual world wide burden of Cervical Cancer is over 530000 new cases and 275000 deaths with majority occuring in low and middle income groups. A major issue is co-infection with HIV which further increases the risk for cervical cancer. In STD clinic, women are at the increased risk of cervical cancer as a result of HPV infection and other associated STIs. Cervical Cytology using PAP smear is an effective low cost screening test for preventing invasive cervical cancer. The aim of my study is to know the prevalence of abnormal Cervical cytology using PAP smear as a screening procedure among the attendees of female STD OPD.

The Study Design

This study was designed to study the prevalence of abnormal PAP smear cytology among women attending STD clinic, who are at the risk for cervical cancer as a result of HPV infection, cervical disease or history of cervical disease compared with the women with out this characteristics.

Study procedures:

A Study on prevalence of abnormal cervical cytology using PAP smear as a screening procedure among the attendees of female STD OPD

Women of Childbearing Potential

You must not participate if your are pregnant, breast feeding a child .

Possible risks to you: Nil

possible benefits to you: Early treatment and avoidance of complications

Possible benefits to other people:

The result of the research may provide benefits to the society in terms of advancement of medical knowledge. (The sponsor of the research_____ will also benefit from the results of study, if positive.)

Confidentiality of information obtained from you

You have right to confidentiality regarding the privacy of your medical information (personal details ,results of physical examinations, and your medical history). By signing this document, you will be allowing the research team investigators , other study personnel, sponsors IEC and any person or agency required by law like Drug Controller General of India to view your data , if required.

This information from this study ,if published in scientific or presented at scientific meetings will not reveal your identity.

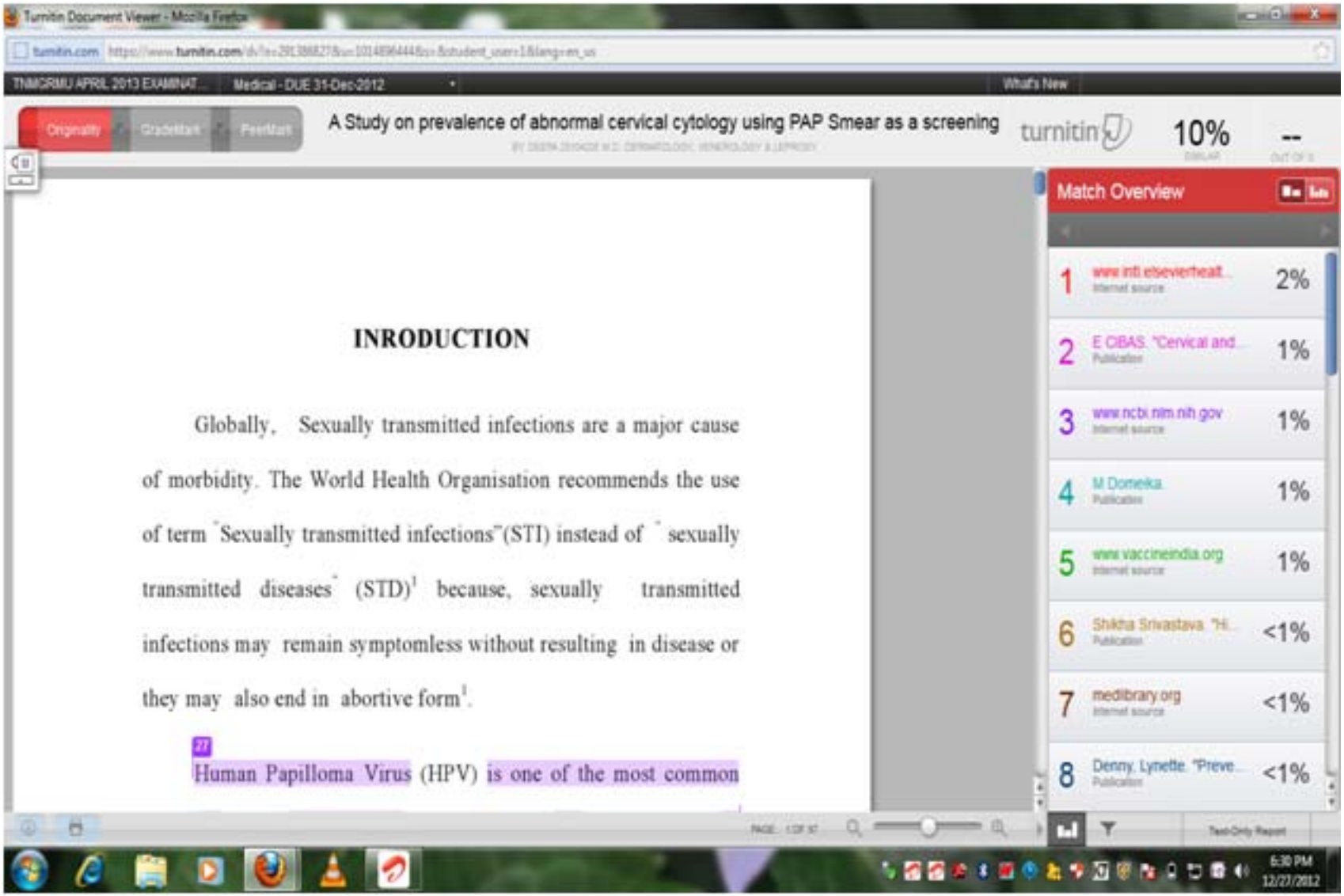
How will your decision to not participate in study affect you?

Your decisions to not participate in this research study will not affect your medical care or your relationship with investigator or institution. Your doctor will still take care of you and you will not lose any benefits to which you are entitled.

Can you decide to stop participate in study in once you started?

The participation in this is purely voluntary and have the right to withdraw from this study at any time during course of the study without giving any reasons.

However , it advisable that you talk to the research team prior to stopping the treatment.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A Study on prevalence of abnormal cervical cytology using PAP Smear as a screening
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INRODUCTION
Globally, Sexually transmitted infections are a major cause of morbidity. The World Health Organisation recommends the use of term "Sexually transmitted infections"(STI) instead of " sexually transmitted diseases" (STD)[1] because, sexually transmitted infections may remain symptomless without resulting in disease or they may also end in abortive form[1].
Human Papilloma Virus (HPV) is one of the most common
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1 www.intl.elsevierhealt... Internet source 2%
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INSTITUTIONAL ETHICS COMMITTEE
MADRAS MEDICAL COLLEGE, CHENNAI -3

Telephone No : 044 25305301
Fax : 044 25363970

CERTIFICATE OF APPROVAL

To
Dr. K. Deepa
PG in MDDVL
Madras Medical College, Chennai -3

Dear Dr. K. Deepa

The Institutional Ethics committee of Madras Medical College, reviewed and discussed your application for approval of the proposal entitled " A study of prevalence of abnormal cervical cytology using pap smear as a screening procedure among the attendees of female STD OPD " No.31012012.

The following members of Ethics Committee were present in the meeting held on 27.01.2012 conducted at Madras Medical College, Chennai -3.

1. Prof. S.K. Rajan. MD -- Chairperson
2. Prof. Pregna B. Dolia MD -- Member Secretary
   Vice Principal, Madras Medical College, Chennai -3
   (Director , Institute of Biochemistry, MMC, Ch-3)
3. Prof. B. Kalaiselvi. MD -- Member
   Prof of Pharmacology ,MMC, Ch-3
4. Prof. Shruti Kamal MS -- Member
   Prof of Surgery, Madras Medical College , Ch-3
5. Thiru. S. Govindsamy. BA BL -- Lawyer

We approve the proposal to be conducted in its presented form.

Sd/ Chairman & Other Members

The Institutional Ethics Committee expects to be informed about the progress of the study, and SAE occurring in the course of the study, any changes in the protocol and patients information / informed consent and asks to be provided a copy of the final report.

Member Secretary, Ethics Committee

SNO	Age	AddressRU	Occupation	Monthlyincome	Educationstatus	Maritalstatus	Numberofpartnermonoormultiple	Marriedsince	Presentingcomplaints	Sexualhistory	Method of Contraception	No. of Children	L/E	PS	Cervix_GS	New_PS1	Vagina_KOH	Vagina_NS	Vegina_GS	GenitalUlcer_TS	GenitalUlcer_GS	GenitalUlcer_LS	CultureforTrichomonasvaginalis	VDRL	HIVab	Spouseassementfollowup	DIAGNOSIS
1	4	2	3	1	1	1	MO	4	2	4	3.00	3.00	N	N	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	1
2	3	2	3	1	1	1	MU	4	2	2	4.00	4.00	N	N	P	1.00	N	NEG	P	NEG	NEG	NEG	P	NR	NEG	4	2
3	4	2	1	1	1	1	MO	4	2	4	1.00	1.00	N	N	P	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	5
4	3	2	1	1	1	1	MO	3	5	4	2.00	2.00	S	E	P	3.00	N	NEG	P	NEG	NEG	NEG	N	NR	NEG	4	7
5	5	1	1	1	1	1	MO	4	2	4	2.00	2.00	N	E	P	2.00	N	NEG	P	NEG	NEG	NEG	N	NR	NEG	4	5
6	2	1	1	1	1	1	MO	1	1	4	2.00	2.00	N	N	2	3.00	N	NEG	NEG	NEG	NEG	NEG	P	NR	NEG	4	2
7	5	2	1	1	1	1	MU	4	7	2	3.00	3.00	U	N	N	3.00	N	NEG	NEG	MNG	NEG	NEG	N	NR	NEG	4	8
8	1	2	1	1	1	1	MO	4	1	4	2.00	2.00	N	E	P	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
9	2	2	1	1	1	1	MO	3	1	4	3.00	3.00	N	D	N	1.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	1
10	3	2	3	1	1	1	MO	4	1	4	3.00	3.00	N	N	P	3.00	N	P	P	NEG	NEG	NEG	N	NR	NEG	4	9
11	1	2	1	1	2	1	MO	1	1	4	1.00	1.00	N	N	N	1.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
12	3	1	1	2	3	1	MO	4	1	4	3.00	3.00	N	D	P	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
13	3	2	1	1	2	1	MO	4	1	4	2.00	2.00	N	N	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
14	2	1	3	1	3	1	MO	4	1	4	3.00	3.00	N	N	N	1.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
15	2	1	3	1	3	1	MO	4	2	4	3.00	3.00	N	E	P	3.00	N	P	NEG	NEG	NEG	NEG	N	NR	NEG	4	6
16	2	1	1	1	4	1	MO	3	2	4	2.00	2.00	N	D	N	3.00	N	C	C	NEG	NEG	NEG	N	NR	NEG	4	5
17	2	2	3	1	3	1	MO	1	2	4	1.00	1.00	N	N	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
18	2	1	3	2	2	1	MO	4	1	4	3.00	3.00	N	E	N	3.00	N	P	NEG	NEG	NEG	NEG	N	NR	NEG	4	6
19	2	1	3	3	3	1	MO	3	2	4	3.00	3.00	N	N	P	1.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
20	2	1	3	2	2	1	MU	1	2	1	0.00	0.00	N	N	N	3.00	N	C	C	NEG	NEG	NEG	N	NR	NEG	4	5
21	1	2	3	3	3	1	MO	2	9	4	2.00	2.00	N	N	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	2	9
22	3	2	3	3	3	1	MO	3	1	4	2.00	2.00	N	N	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
23	3	1	1	1	1	1	MO	4	1	4	4.00	4.00	N	N	N	3.00	N	C	C	NEG	NEG	NEG	N	NR	NEG	4	5
24	1	2	1	2	3	1	MO	1	2	4	0.00	0.00	N	E	N	1.00	N	NEG	NEG	NEG	NEG	NEG	N	1:16 R	NEG	4	SY2
25	3	2	3	3	3	1	MU	4	2	1	4.00	4.00	N	E	N	3.00	N	C	C	NEG	NEG	NEG	N	NR	NEG	4	5
26	1	2	2	3	4	2	MU	1	7	1	4.00	7.00	U	N	Y	3.00	Y	P	P	MNG	NEG	NEG	N	NR	NEG	5	8
27	3	2	3	2	3	1	MO	3	1	4	2.00	2.00	N	N	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
28	2	2	3	1	3	1	MO	2	1	4	2.00	2.00	N	N	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9

SNO	Age	AddressRU	Occupation	Monthlyincome	Educationstatus	Maritalstatus	Numberofpartnermonoormultiple	Marriedsince	Presentingcomplaints	Sexualhistory	Method of Contraception	No. of Children	L/E	PS	Cervix_GS	New_PS1	Vagina_KOH	Vagina_NS	Vegina_GS	GenitalUlcer_TS	GenitalUlcer_GS	GenitalUlcer_LS	CultureforTrichomonasvaginalis	VDRL	HIVab	Spouseassementfollowup	DIAGNOSIS
29	3	1	3	3	2	1	MO	2	8	4	0.00	0.00	N	N	P	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
30	3	1	3	2	3	1	MU	4	2	1	5.00	5.00	N	E	P	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	6
31	2	1	3	2	2	1	MO	2	1	4	2.00	2.00	N	N	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
32	4	1	1	2	3	1	MO	4	1	4	3.00	3.00	N	E	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	6
33	2	1	3	2	3	1	MO	4	1	4	3.00	3.00	N	N	N	1.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
34	1	1	3	2	3	1	MO	2	2	4	3.00	3.00	N	E	P	1.00	N	P	NEG	NEG	NEG	NEG	N	NR	NEG	4	6
35	3	2	2	2	3	1	MO	4	7	4	3.00	3.00	U	N	P	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	POS	4	8
36	3	2	1	2	1	1	MO	4	1	4	3.00	3.00	N	N	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
37	3	1	3	2	4	5	MO	4	1	4	3.00	3.00	N	E	P	3.00	Y	NEG	Y	NEG	NEG	NEG	N	NR	POS	7	12
38	4	2	3	2	3	1	MO	4	1	4	4.00	4.00	N	N	P	3.00	N	NEG	P	NEG	NEG	NEG	N	NR	NEG	4	9
39	2	2	3	2	1	1	MO	3	1	4	1.00	1.00	N	E	P	3.00	N	C	P	NEG	NEG	NEG	N	NR	NEG	4	5
40	1	1	3	2	3	1	MO	2	2	4	2.00	2.00	N	N	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	1
41	3	2	3	2	4	1	MO	4	1	4	2.00	2.00	N	N	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
42	3	2	3	3	4	1	MO	4	11	4	3.00	3.00	G	N	P	3.00	Y	NEG	P	NEG	NEG	NEG	N	NR	POS	4	12
43	3	1	1	2	3	1	MO	4	2	4	2.00	2.00	N	E	N	3.00	N	NEG	P	NEG	NEG	NEG	N	NR	NEG	4	6
44	2	2	1	2	2	1	MO	1	4	4	1.00	1.00	N	N	N	1.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
45	3	1	3	1	3	1	MO	4	11	4	3.00	3.00	N	E	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	6
46	3	2	1	1	1	1	MO	4	1	4	0.00	0.00	N	D	N	3.00	N	NEG	P	NEG	NEG	NEG	N	NR	NEG	4	9
47	2	2	3	1	2	1	MO	3	11	4	2.00	2.00	N	N	N	3.00	N	NEG	P	NEG	NEG	NEG	N	NR	NEG	4	5
48	2	2	5	1	2	1	MO	3	1	4	1.00	1.00	N	N	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	5
49	2	1	3	3	3	1	MO	4	2	4	3.00	3.00	N	E	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	6
50	1	2	2	3	3	1	MO	1	2	1		7.00	N	D	C	3.00	N	C	P	NEG	NEG	NEG	N	NR	NEG	4	5
51	3	2	2	2	2	1	MO	4	1	4	4.00	4.00	N	N	N	1.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	3
52	5	1	3	1	3	1	MO	4	2	4	4.00	4.00	N	G	P	2.00	N	NEG	P	NEG	NEG	NEG	N	NR	NEG	4	2
53	1	2	1	1	3	1	MO	1	8	4	0.00	0.00	N	N	N	3.00	N	NEG	P	NEG	NEG	NEG	N	NR	NEG	4	5
54	1	2	3	2	3	1	MO	1	2	4	0.00	0.00	N	N	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	3
55	3	2	3	2	4	5	MO	4	11	4	3.00	3.00	N	N	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	3
56	2	1	3	2	4	1	MO	3	2	4	2.00	2.00	N	N	P	3.00	N	NEG	P	NEG	NEG	NEG	N	NR	POS	4	3

SNO	Age	AddressRU	Occupation	Monthlyincome	Educationstatus	Maritalstatus	Numberofpartnermonoormultiple	Marriedsince	Presentingcomplaints	Sexualhistory	Method of Contraception	No. of Children	L/E	PS	Cervix_GS	New_PS1	Vagina_KOH	Vagina_NS	Vegina_GS	GenitalUlcer_TS	GenitalUlcer_GS	GenitalUlcer_LS	CultureforTrichomonasvaginalis	VDRL	HIVab	Spouseassementfollowup	DIAGNOSIS
57	2	1	1	2	4	1	MO	3	5	4	2.00	2.00	N	E	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	6
58	2	2	3	2	3	1	MO	3	9	4	2.00	2.00	N	N	P	2.00	Y	NEG	NEG	NEG	NEG	NEG	N	Reactive Idil ®	NEG	4	4
59	3	2	1	2	1	1	MO	4	1	4	3.00	3.00	N	N	P	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
60	2	2	5	2	3	1	MO	4	5	4	1.00	1.00	N	N	N	1.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
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64	4	2	3	2	4	1	MO	4	11	4	1.00	1.00	N	N	N	2.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
65	4	2	3	2	4	1	MO	4	1	4	3.00	3.00	N	N	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
66	2	1	1	1	1	1	MO	3	1	4	0.00	0.00	N	N	N	1.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
67	1	2	4	3	4	1	MO	1	5	4	0.00	0.00	S	N	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
68	2	1	3	2	4	1	MO	4	2	4	2.00	2.00	N	E	P	3.00	N	C	C	NEG	NEG	NEG	N	NR	NEG	4	5
69	1	1	1	1	1	1	MO	2	3	4	1.00	1.00	N	E	C	3.00	N	NEG	C	NEG	NEG	NEG	N	NR	NEG	4	6
70	3	2	3	2	4	5	MO	4	2	4	2.00	2.00	N	D	N	2.00	Y	NEG	Y	NEG	NEG	NEG	N	NR	NEG	4	4
71	2	2	2	3	3	5	MU	1	2	4	3.00	3.00	N	E	N	3.00	N	NEG	P	NEG	NEG	NEG	N	NR	NEG	4	6
72	1	2	2	3	3	2	MU	1	1	1	0.00	0.00	N	N	N	3.00	N	C	NEG	NEG	NEG	NEG	N	NR	NEG	5	5
73	1	2	2	3	3	2	MU	1	1	4		6.00	N	N	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	R, TPHA +	NEG	5	10
74	1	2	2	3	4	2	MU	1	2	1	0.00	0.00	N	N	P	3.00	N	TV	P	NEG	NEG	NEG	P	NR	NEG	2	TV
75	1	1	2	2	4	1	MU	1	2	1	2.00	2.00	N	N	N	3.00	N	C	C	NEG	NEG	NEG	N	NR, TPHA+	NEG	6	5
76	1	1	3	2	3	1	MU	2	1	2	0.00	0.00	N	N	P	3.00	N	P	P	NEG	NEG	NEG	N	NR, TPHA +	NEG	6	10
77	2	2	2	2	3	1	MU	4	1	2	2.00	2.00	N	E	P	2.00	N	P	P	NEG	NEG	NEG	N	NR	NEG	4	6
78	1	2	2	2	3	1	MU	2	1	2	1.00	1.00	N	N	N	3.00	Y	C	C	NEG	NEG	NEG	N	NR	NEG	5	5
79	2	2	1	2	3	1	MO	4	11	4	3.00	3.00	N	N	2	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	3
80	2	1	2	3	2	1	MU	2	1	2	2.00	2.00	N	N	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	7	5
81	2	2	2	2	3	1	MU	3	12	1	0.00	0.00	G	E	P	3.00	N	NEG	P	NEG	NEG	NEG	N	NR	NEG	7	12
82	2	2	3	2	3	1	MO	1	1	4	2.00	2.00	N	D	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	3
83	1	1	3	1	1	1	MO	2	1	4	2.00	2.00	N	N	N	3.00	N	C	C	NEG	NEG	NEG	N	NR	NEG	4	5
84	3	1	3	1	1	1	MO	4	1	4	3.00	3.00	N	D	N	3.00	N	tv	NEG	NEG	NEG	NEG	P	NR	NEG	4	2

SNO	Age	AddressRU	Occupation	Monthlyincome	Educationstatus	Maritalstatus	Numberofpartnermonoormultiple	Marriedsince	Presentingcomplaints	Sexualhistory	Method of Contraception	No. of Children	L/E	PS	Cervix_GS	New_PS1	Vagina_KOH	Vagina_NS	Vegina_GS	GenitalUlcer_TS	GenitalUlcer_GS	GenitalUlcer_LS	CultureforTrichomonasvaginalis	VDRL	HIVab	Spouseassementfollowup	DIAGNOSIS
85	3	2	3	1	1	1	MO	3	1	4	2.00	2.00	N	D	N	3.00	N	C	NEG	NEG	NEG	NEG	N	NR	NEG	4	5
86	3	2	3	1	3	1	MO	4	1	4	3.00	3.00	N	D	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	6
87	3	1	3	1	1	1	MO	4	1	4	1.00	1.00	N	D	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	5
88	2	1	3	1	3	1	MO	2	1	4	2.00	2.00	N	D	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	3
89	3	1	3	1	1	1	MO	4	1	4	2.00	2.00	N	D	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	3
90	2	2	3	1	3	3	MO	3	1	2		6.00	N	D	N	2.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	5
91	3	1	3	1	2	1	MO	4	1	4	2.00	2.00	N	E	P	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	6
92	3	2	5	1	3	5	MO	4	1	4	2.00	2.00	N	N	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
93	3	2	5	1	1	1	MO	3	2	4	3.00	3.00	N	E	N	1.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	4
94	3	2	3	1	3	1	MO	4	1	4	2.00	2.00	N	D	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	3
95	3	2	5	1	1	1	MO	4	2	4	2.00	2.00	N	D	N	1.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	4
96	2	2	1	1	1	1	MO	2	1	4	2.00	2.00	N	D	N	2.00	N	NEG	Sec	NEG	NEG	NEG	N	NR	NEG	4	3
97	2	2	1	1	2	1	MO	2	1	4	3.00	3.00	N	E	N	1.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	6
98	2	2	1	1	2	1	MO	2	1	4	2.00	2.00	N	D	N	1.00	N	NEG	Sec	NEG	NEG	NEG	N	NR	NEG	4	6
99	5	1	5	1	1	1	MO	4	1	4	5.00	5.00	N	N	N	2.00	N	NEG	NEG	NEG	NEG	NEG	N	R, TPHA +V	NEG	4	10
100	3	1	1	1	3	1	MO	3	1	4	3.00	3.00	N	N	P	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	3
101	3	2	1	1	1	1	MO	3	1	4	3.00	3.00	N	N	N	1.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
102	2	2	1	1	2	1	MO	2	1	4	2.00	2.00	N	D	N	1.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	6
103	4	1	1	1	1	1	MO	4	1	4	3.00	3.00	N	E	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	6
104	4	1	1	1	1	1	MO	4	2	4	1.00	1.00	N	D	N	3.00	N	C	C	NEG	NEG	NEG	N	NR	NEG	4	5
105	4	2	1	1	1	1	MO	4	1	4	3.00	3.00	N	D	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	3
106	3	2	1	1	2	1	MO	4	1	4	2.00	2.00	N	N	N	1.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
107	1	2	1	1	3	1	MO	1	1	4	1.00	1.00	N	E	N	3.00	N	NEG	NEG	NEG	MNG	NEG	N	NR	NEG	4	6
108	2	2	1	1	2	4	MU	2	3	4	2.00	2.00	N	E	P	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	1	6
109	3	1	1	1	3	1	MO	4	2	4	4.00	4.00	N	E	N	3.00	N	P	P	NEG	NEG	NEG	N	NR	NEG	4	6
110	3	1	1	1	1	1	MO	4	1	4	3.00	3.00	N	D	N	1.00	N	tv	P	NEG	NEG	NEG	P	NR	NEG	4	2
111	5	2	1	1	1	1	MO	1	1	4	5.00	5.00	N	D	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	6
112	4	2	3	1	1	1	MO	4	2	4	3.00	3.00	N	N	N	3.00	N	NEG	NEG	NEG	NEG	NEG	P	NR	NEG	4	1

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113	3	2	3	1	1	1	MU	4	2	2	4.00	4.00	N	N	P	1.00	N	NEG	P	NEG	NEG	NEG	N	NR	NEG	4	2
114	4	2	1	1	1	1	MO	4	2	4	1.00	1.00	N	N	P	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	5
115	3	2	1	1	1	1	MO	3	5	4	2.00	2.00	S	E	P	3.00	N	NEG	P	NEG	NEG	NEG	N	NR	NEG	4	7
116	5	1	1	1	1	1	MO	4	2	4	2.00	2.00	N	E	P	2.00	N	NEG	P	NEG	NEG	NEG	N	NR	NEG	4	5
117	2	1	1	1	1	1	MO	1	1	4	2.00	2.00	N	N	2	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	2
118	5	2	1	1	1	1	MU	4	7	2	3.00	3.00	U	N	N	3.00	N	NEG	NEG	MNG	NEG	NEG	N	NR	NEG	4	8
119	1	2	1	1	1	1	MO	4	1	4	2.00	2.00	N	E	P	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
120	2	2	1	1	1	1	MO	3	1	4	3.00	3.00	N	D	N	1.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	1
121	3	2	3	1	1	1	MO	4	1	4	3.00	3.00	N	N	P	3.00	N	P	P	NEG	NEG	NEG	N	NR	NEG	4	9
122	1	2	1	1	2	1	MO	1	1	4	1.00	1.00	N	N	N	1.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
123	3	1	1	2	3	1	MO	4	1	4	3.00	3.00	N	D	P	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
124	3	2	1	1	2	1	MO	4	1	4	2.00	2.00	N	N	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
125	2	1	3	1	3	1	MO	4	1	4	3.00	3.00	N	N	N	1.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
126	2	1	3	1	3	1	MO	4	2	4	3.00	3.00	N	E	P	3.00	N	P	NEG	NEG	NEG	NEG	N	NR	NEG	4	6
127	2	1	1	1	4	1	MO	3	2	4	2.00	2.00	N	D	N	3.00	N	C	C	NEG	NEG	NEG	N	NR	NEG	4	5
128	2	2	3	1	3	1	MO	1	2	4	1.00	1.00	N	N	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
129	2	1	3	2	2	1	MO	4	1	4	3.00	3.00	N	E	N	3.00	N	P	NEG	NEG	NEG	NEG	N	NR	NEG	4	6
130	2	1	3	3	3	1	MO	3	2	4	3.00	3.00	N	N	P	1.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
131	2	1	3	2	2	1	MU	1	2	1	0.00	0.00	N	N	N	3.00	N	C	C	NEG	NEG	NEG	N	NR	NEG	4	5
132	1	2	3	3	3	1	MO	2	9	4	2.00	2.00	N	N	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	2	9
133	3	2	3	3	3	1	MO	3	1	4	2.00	2.00	N	N	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
134	3	1	1	1	1	1	MO	4	1	4	4.00	4.00	N	N	N	3.00	N	C	C	NEG	NEG	NEG	N	NR	NEG	4	5
135	1	2	1	2	3	1	MO	1	2	4	0.00	0.00	N	E	N	1.00	N	NEG	NEG	NEG	NEG	NEG	N	1:16 R	NEG	4	SY2
136	3	2	3	3	3	1	MU	4	2	1	4.00	4.00	N	E	N	3.00	N	C	C	NEG	NEG	NEG	N	NR	NEG	4	5
137	1	2	2	3	4	2	MU	1	7	1		7.00	U	N	Y	3.00	Y	P	P	MNG	NEG	NEG	N	NR	NEG	5	8
138	3	2	3	2	3	1	MO	3	1	4	2.00	2.00	N	N	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
139	2	2	3	1	3	1	MO	2	1	4	2.00	2.00	N	N	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
140	3	1	3	3	2	1	MO	2	8	4	0.00	0.00	N	N	P	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9

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141	3	1	3	2	3	1	MU	4	2	1	5.00	5.00	N	E	P	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	6
142	2	1	3	2	2	1	MO	2	1	4	2.00	2.00	N	N	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
143	4	1	1	2	3	1	MO	4	1	4	3.00	3.00	N	E	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	6
144	2	1	3	2	3	1	MO	4	1	4	3.00	3.00	N	N	N	1.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
145	1	1	3	2	3	1	MO	2	2	4	3.00	3.00	N	E	P	1.00	N	P	NEG	NEG	NEG	NEG	N	NR	NEG	4	6
146	3	2	2	2	3	1	MO	4	7	4	3.00	3.00	U	N	P	1.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	POS	4	8
147	3	2	1	2	1	1	MO	4	1	4	3.00	3.00	N	N	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
148	3	1	3	2	4	5	MO	4	1	4	3.00	3.00	N	E	P	3.00	Y	NEG	Y	NEG	NEG	NEG	N	NR	POS	7	12
149	4	2	3	2	3	1	MO	4	1	4	4.00	4.00	N	N	P	3.00	N	NEG	P	NEG	NEG	NEG	N	NR	NEG	4	9
150	2	2	3	2	1	1	MO	3	1	4	1.00	1.00	N	E	P	3.00	N	C	P	NEG	NEG	NEG	N	NR	NEG	4	5
151	1	1	3	2	3	1	MO	2	2	4	2.00	2.00	N	N	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	1
152	1	1	3	1	1	1	MO	2	1	4	2.00	2.00	N	N	N	3.00	N	C	C	NEG	NEG	NEG	N	NR	NEG	4	5
153	3	1	3	1	1	1	MO	4	1	4	3.00	3.00	N	D	N	1.00	N	tv	NEG	NEG	NEG	NEG	P	NR	NEG	4	2
154	3	2	3	1	1	1	MO	3	1	4	2.00	2.00	N	D	N	3.00	N	C	NEG	NEG	NEG	NEG	N	NR	NEG	4	5
155	3	2	3	1	3	1	MO	4	1	4	3.00	3.00	N	D	N	1.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
156	3	1	3	1	1	1	MO	4	1	4	1.00	1.00	N	D	N	1.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
157	2	1	3	1	3	1	MO	2	1	4	2.00	2.00	N	D	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	5
158	3	1	3	1	1	1	MO	4	1	4	2.00	2.00	N	D	N	1.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
159	2	2	3	1	3	3	MO	3	1	2		6.00	N	D	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	5
160	3	1	3	1	2	1	MO	4	1	4	2.00	2.00	N	E	P	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	6
161	3	2	5	1	3	5	MO	4	1	4	2.00	2.00	N	N	N	1.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
162	3	2	5	1	1	1	MO	3	2	4	3.00	3.00	N	E	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	4
163	3	2	3	1	3	1	MO	4	1	4	2.00	2.00	N	D	N	1.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
164	3	2	5	1	1	1	MO	4	2	4	2.00	2.00	N	D	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	4
165	2	2	1	1	1	1	MO	2	1	4	2.00	2.00	N	D	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	5
166	2	2	1	1	2	1	MO	2	1	4	3.00	3.00	N	E	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	6
167	2	2	1	1	2	1	MO	2	1	4	2.00	2.00	N	D	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	3
168	5	1	5	1	1	1	MO	4	1	4	5.00	5.00	N	N	N	1.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9

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169	3	1	1	1	3	1	MO	3	1	4	3.00	3.00	N	N	P	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	3
170	3	2	1	1	1	1	MO	3	1	4	3.00	3.00	N	N	N	1.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
171	2	2	1	1	2	1	MO	2	1	4	2.00	2.00	N	D	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	3
172	4	1	1	1	1	1	MO	4	1	4	3.00	3.00	N	E	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	6
173	4	1	1	1	1	1	MO	4	2	4	1.00	1.00	N	D	N	3.00	N	C	C	NEG	NEG	NEG	N	NR	NEG	4	5
174	4	2	1	1	1	1	MO	4	1	4	3.00	3.00	N	D	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	3
175	3	2	1	1	2	1	MO	4	1	4	2.00	2.00	N	N	N	1.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
176	1	2	1	1	3	1	MO	1	1	4	1.00	1.00	N	E	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	6
177	2	2	1	1	2	4	MU	2	3	4	2.00	2.00	N	E	P	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	1	3
178	3	1	1	1	3	1	MO	4	2	4	4.00	4.00	N	E	N	3.00	N	P	P	NEG	NEG	NEG	N	NR	NEG	4	6
179	3	1	1	1	1	1	MO	4	1	4	3.00	3.00	N	D	N	1.00	N	tv	P	NEG	NEG	NEG	P	NR	NEG	4	2
180	5	2	1	1	1	1	MO	1	1	4	5.00	5.00	N	D	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	3
181	3	2	1	1	1	1	MO	4	13	4	3.00	3.00	N	N	N	1.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	3	10
182	3	2	1	1	1	1	MO	3	1	4	2.00	2.00	N	N	N	1.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
183	2	2	1	1	1	1	MO	3	8	4	0.00	0.00	N	N	N	3.00	N	C	C	NEG	NEG	NEG	N	NR	NEG	4	5
184	2	2	1	2	1	1	MO	1	1	4	2.00	2.00	N	E	N	3.00	Y	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	5
185	2	1	1	1	3	1	MO	1	2	4	1.00	1.00	N	N	N	1.00	N	C	C	NEG	NEG	NEG	N	NR	NEG	4	5
186	3	1	1	1	1	1	MO	4	1	4	4.00	4.00	N	N	N	1.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
187	3	1	5	2	3	1	MO	3	1	4	3.00	3.00	N	E	N	3.00	Y	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	4
188	5	2	1	1	1	1	MO	4	1	4	2.00	2.00	N	N	N	1.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
189	4	2	1	1	1	1	MO	4	1	4	5.00	5.00	N	D	P	3.00	N	C	P	NEG	NEG	NEG	N	NR	NEG	4	6
190	3	1	1	1	1	1	MO	4	1	4	3.00	3.00	N	N	N	1.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
191	5	2	1	1	1	1	MO	4	2	4	3.00	3.00	N	E	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	POS	7	12
192	2	2	1	1	1	1	MO	3	2	4	2.00	2.00	N	N	P	2.00	P	NEG	P	NEG	NEG	NEG	N	NR	NEG	4	3
193	1	2	5	2	2	1	MO	2	1	4	2.00	2.00	N	N	P	2.00	Y	Y	Y	NEG	NEG	NEG	N	NR	NEG	4	4
194	3	2	5	2	1	1	MO	4	1	4	3.00	3.00	N	E	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	6
195	3	2	1	1	3	1	MO	4	1	4	2.00	2.00	N	N	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
196	2	1	1	1	2	1	MO	3	4	4	3.00	3.00	N	N	N	1.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	13

SNO	Age	AddressRU	Occupation	Monthlyincome	Educationstatus	Maritalstatus	Numberofpartnermonoormultiple	Marriedsince	Presentingcomplaints	Sexualhistory	Method of Contraception	No. of Children	L/E	PS	Cervix_GS	New_PS1	Vagina_KOH	Vagina_NS	Vegina_GS	GenitalUlcer_TS	GenitalUlcer_GS	GenitalUlcer_LS	CultureforTrichomonasvaginalis	VDRL	HIVab	Spouseassementfollowup	DIAGNOSIS
197	3	1	5	1	3	1	MO	4	1	4	2.00	2.00	N	D	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
198	5	2	1	1	2	1	MO	4	1	4	1.00	1.00	N	N	P	1.00	N	NEG	P	NEG	NEG	NEG	N	NR	NEG	4	9
199	5	2	1	2	3	1	MO	4	1	4	3.00	3.00	N	E	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	6
200	4	2	5	1	2	1	MO	4	1	4	3.00	3.00	N	N	N	1.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
201	2	2	1	2	3	1	MO	3	2	4	3.00	3.00	N	E	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	6
202	2	2	1	1	3	1	MO	3	2	4	2.00	2.00	N	E	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	7
203	3	2	2	2	3	1	MU	4	2	1	4.00	4.00	N	E	P	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	6
204	1	2	5	3	3	1	MO	1	1	4	0.00	0.00	N	D	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	6
205	4	1	1	1	1	1	MO	4	4	2	4.00	4.00	N	E	P	3.00	Y	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	4
206	1	2	1	1	4	1	MO	1	2	4	1.00	1.00	N	N	N	1.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	4
207	4	2	5	2	3	1	MO	4	2	4	3.00	3.00	N	N	N	1.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	3
208	2	1	3	2	3	1	MO	2	1	4	3.00	3.00	N	N	P	1.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
209	2	1	1	1	1	1	MO	1	2	4	1.00	1.00	N	E	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	6
210	1	2	1	1	3	1	MO	2	2	4	0.00	0.00	N	N	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	4
211	2	2	1	1	3	1	MO	1	1	1	0.00	0.00	N	D	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	3
212	2	2	1	1	1	1	MO	3	1	4	2.00	2.00	N	E	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	6
213	4	2	3	1	1	1	MO	4	11	4	4.00	4.00	N	E	P	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	6
214	3	2	1	1	3	1	MO	4	4	4	3.00	3.00	N	N	P	1.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	13
215	4	2	1	1	1	1	MO	4	1	4	2.00	2.00	N	E	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	6
216	1	2	5	3	3	1	MO	1	5	4	0.00	0.00	N	N	N	1.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	7
217	3	2	1	1	1	1	MO	4	1	4	4.00	4.00	N	E	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	6
218	2	1	5	3	3	1	MO	2	2	4	2.00	2.00	N	E	P	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	6
219	2	1	1	2	3	1	MO	3	2	1	2.00	2.00	N	N	N	1.00	N	TV	NEG	NEG	NEG	NEG	N	NR	NEG	4	2
220	2	1	1	1	1	1	MO	3	2	4	0.00	0.00	N	N	N	1.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	1
221	2	1	5	1	2	1	MO	2	2	4	3.00	3.00	N	D	P	3.00	P	NEG	P	NEG	NEG	NEG	N	NR	NEG	4	6
222	2	2	5	1	3	1	MO	3	1	4	2.00	2.00	N	N	N	1.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
223	2	2	1	1	3	1	MO	4	1	4	2.00	2.00	N	N	P	3.00	P	NEG	P	NEG	NEG	NEG	N	NR	NEG	4	3
224	2	1	1	1	1	1	MO	4	2	1	3.00	3.00	N	E	Y	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	6	3

SNO	Age	AddressRU	Occupation	Monthlyincome	Educationstatus	Maritalstatus	Numberofpartnermonoormultiple	Marriedsince	Presentingcomplaints	Sexualhistory	Method of Contraception	No. of Children	L/E	PS	Cervix_GS	New_PS1	Vagina_KOH	Vagina_NS	Vegina_GS	GenitalUlcer_TS	GenitalUlcer_GS	GenitalUlcer_LS	CultureforTrichomonasvaginalis	VDRL	HIVab	Spouseassementfollowup	DIAGNOSIS
225	3	2	1	1	3	1	MO	4	1	4	2.00	2.00	N	N	N	1.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
226	2	2	1	1	3	1	MO	4	2	4	2.00	2.00	N	N	P	3.00	N	P	P	NEG	NEG	NEG	N	NR	NEG	4	5
227	3	1	1	1	1	1	MO	4	11	3	0.00	0.00	N	N	P	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	6
228	4	1	1	1	1	1	MU	4	1	1	4.00	4.00	N	E	P	2.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	13
229	3	1	2	1	2	1	MO	3	2	4	2.00	2.00	N	E	P	3.00	N	NEG	P	NEG	NEG	NEG	N	NR	NEG	4	6
230	3	1	1	1	1	1	MO	2	4	4	4.00	4.00	N	D	N	3.00	N	NEG	P	NEG	NEG	NEG	N	NR	NEG	4	5
231	2	2	2	1	2	1	MU	1	4	1	1.00	1.00	N	E	P	2.00	N	NEG	P	NEG	NEG	NEG	N	NR	NEG	4	5
232	3	1	3	2	2	2	MO	2	2	2	2.00	2.00	N	E	P	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
233	2	1	2	2	1	1	MO	3	4	4	2.00	2.00	N	D	N	3.00	N	C	C	NEG	NEG	NEG	N	NR	NEG	4	5
234	2	2	1	2	1	2	MU	1	2	4	2.00	2.00	N	E	P	2.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	6
235	3	1	1	1	1	1	MO	2	1	1	3.00	3.00	N	N	P	2.00	N	C	C	NEG	NEG	NEG	N	NR	NEG	4	5
236	2	2	1	1	2	1	MU	1	2	1	2.00	2.00	N	E	P	2.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	6
237	3	1	1	2	1	2	MO	2	1	4	3.00	3.00	N	N	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
238	2	1	1	2	2	3	MO	2	1	2	2.00	2.00	N	N	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	3
239	1	2	2	1	1	2	MU	2	2	1	3.00	3.00	N	D	N	1.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	6
240	2	1	1	1	1	1	MO	1	1	2	0.00	0.00	N	N	N	2.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
241	3	1	2	2	2	1	MU	3	2	1	2.00	2.00	N	E	P	2.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	6
242	2	2	2	3	3	1	MU	3	2	1	3.00	3.00	N	E	P	2.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	6
243	3	1	5	3	1	1	MO	4	1	4	1.00	1.00	N	E	N	2.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	6
244	3	1	1	2	2	1	MO	3	1	4	2.00	2.00	N	N	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
245	2	2	3	1	3	3	MO	2	1	4	3.00	3.00	N	N	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	5
246	2	2	3	2	1	2	MO	3	9	4	2.00	2.00	N	N	N	2.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	5
247	2	2	1	1	2	1	MO	2	2	2	2.00	2.00	N	N	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	4
248	3	2	2	2	3	1	MU	3	1	4	3.00	3.00	N	E	P	3.00	N	NEG	NEG	NEG	NEG	MNG	N	NR	NEG	4	8
249	3	2	2	3	4	3	MU	3	1	4	2.00	2.00	N	E	P	1.00	N	TV	NEG	NEG	NEG	NEG	P	NR	NEG	4	2
250	2	1	1	1	2	1	MU	2	2	2	3.00	3.00	N	E	P	3.00	N	NEG	NEG	NEG	NEG	MNG	N	NR	NEG	4	8
251	1	1	3	2	2	1	MO	1	1	4	2.00	2.00	N	N	N	1.00	N	TV	NEG	NEG	NEG	NEG	P	NR	NEG	4	2
252	4	2	3	1	1	1	MO	4	2	4	3.00	3.00	N	N	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	1

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253	3	2	3	1	1	1	MU	4	2	2	4.00	4.00	N	N	P	1.00	N	NEG	P	NEG	NEG	NEG	N	NR	NEG	4	3
254	4	2	1	1	1	1	MO	4	2	4	1.00	1.00	N	N	P	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	5
255	3	2	1	1	1	1	MO	3	5	4	2.00	2.00	S	E	P	3.00	N	NEG	P	NEG	NEG	NEG	N	NR	NEG	4	7
256	5	1	1	1	1	1	MO	4	2	4	2.00	2.00	N	E	P	2.00	N	NEG	P	NEG	NEG	NEG	N	NR	NEG	4	3
257	2	1	1	1	1	1	MO	1	1	4	2.00	2.00	N	N	2	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	2
258	5	2	1	1	1	1	MU	4	7	2	3.00	3.00	U	N	N	3.00	N	NEG	NEG	MNG	NEG	NEG	N	NR	NEG	4	8
259	1	2	1	1	1	1	MO	4	1	4	2.00	2.00	N	E	P	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
260	2	2	1	1	1	1	MO	3	1	4	3.00	3.00	N	D	N	1.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	1
261	3	2	3	1	1	1	MO	4	1	4	3.00	3.00	N	N	P	3.00	N	P	P	NEG	NEG	NEG	N	NR	NEG	4	9
262	1	2	1	1	2	1	MO	1	1	4	1.00	1.00	N	N	N	1.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
263	3	1	1	2	3	1	MO	4	1	4	3.00	3.00	N	D	P	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
264	3	2	1	1	2	1	MO	4	1	4	2.00	2.00	N	N	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
265	2	1	3	1	3	1	MO	4	1	4	3.00	3.00	N	N	N	1.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
266	2	1	3	1	3	1	MO	4	2	4	3.00	3.00	N	E	P	3.00	N	P	NEG	NEG	NEG	NEG	N	NR	NEG	4	6
267	2	1	1	1	4	1	MO	3	2	4	2.00	2.00	N	D	N	3.00	N	C	C	NEG	NEG	NEG	N	NR	NEG	4	5
268	2	2	3	1	3	1	MO	1	2	4	1.00	1.00	N	N	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
269	2	1	3	2	2	1	MO	4	1	4	3.00	3.00	N	E	N	3.00	N	P	NEG	NEG	NEG	NEG	N	NR	NEG	4	6
270	2	1	3	3	3	1	MO	3	2	4	3.00	3.00	N	N	P	1.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
271	2	1	3	2	2	1	MU	1	2	1	0.00	0.00	N	N	N	3.00	N	C	C	NEG	NEG	NEG	N	NR	NEG	4	5
272	1	2	3	3	3	1	MO	2	9	4	2.00	2.00	N	N	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	2	9
273	3	2	3	3	3	1	MO	3	1	4	2.00	2.00	N	N	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
274	3	1	1	1	1	1	MO	4	1	4	4.00	4.00	N	N	N	3.00	N	C	C	NEG	NEG	NEG	N	NR	NEG	4	5
275	1	2	1	2	3	1	MO	1	2	4	0.00	0.00	N	E	N	1.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	1
276	3	2	3	3	3	1	MU	4	2	1	4.00	4.00	N	E	N	3.00	N	C	C	NEG	NEG	NEG	N	NR	NEG	4	5
277	1	2	2	3	4	2	MU	1	7	1		7.00	U	N	Y	3.00	Y	P	P	MNG	NEG	NEG	N	NR	NEG	5	8
278	3	2	3	2	3	1	MO	3	1	4	2.00	2.00	N	N	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
279	2	2	3	1	3	1	MO	2	1	4	2.00	2.00	N	N	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
280	3	1	3	3	2	1	MO	2	8	4	0.00	0.00	N	N	P	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9

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281	3	1	3	2	3	1	MU	4	2	1	5.00	5.00	N	E	P	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	6
282	2	1	3	2	2	1	MO	2	1	4	2.00	2.00	N	N	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
283	4	1	1	2	3	1	MO	4	1	4	3.00	3.00	N	E	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	6
284	2	1	3	2	3	1	MO	4	1	4	3.00	3.00	N	N	N	1.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
285	1	1	3	2	3	1	MO	2	2	4	3.00	3.00	N	E	P	1.00	N	P	NEG	NEG	NEG	NEG	N	NR	NEG	4	6
286	3	2	2	2	3	1	MO	4	7	4	3.00	3.00	U	N	P	1.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	3
287	3	2	1	2	1	1	MO	4	1	4	3.00	3.00	N	N	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
288	3	1	3	2	4	5	MO	4	1	4	3.00	3.00	N	E	P	3.00	Y	NEG	Y	NEG	NEG	NEG	N	NR	POS	7	12
289	4	2	3	2	3	1	MO	4	1	4	4.00	4.00	N	N	P	3.00	N	NEG	P	NEG	NEG	NEG	N	NR	NEG	4	9
290	2	2	3	2	1	1	MO	3	1	4	1.00	1.00	N	E	P	3.00	N	C	P	NEG	NEG	NEG	N	NR	NEG	4	5
291	1	1	3	2	3	1	MO	2	2	4	2.00	2.00	N	N	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	1
292	3	1	2	3	3	1	MU	3	12	1	3.00	3.00	G	N	N	2.00	N	NEG	P	NEG	NEG	NEG	N	NR	NEG	4	6
293	2	2	3	1	1	2	MO	1	1	4	0.00	0.00	N	N	N	3.00	Y	NEG	Y	NEG	NEG	NEG	N	NR	NEG	4	4
294	3	1	3	2	1	2	MO	1	5	4	0.00	0.00	S	N	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	7
295	2	2	5	2	1	2	MU	1	3	4	0.00	0.00	N	N	N	2.00	Y	NEG	Y	NEG	NEG	NEG	N	NR	NEG	4	4
296	1	2	3	3	2	3	MU	1	1	1	3.00	3.00	N	N	N	3.00	N	C	C	NEG	NEG	NEG	N	R,1DIL	NEG	6	5
297	2	2	3	1	3	4	MO	1	4	4	1.00	1.00	N	D	N	3.00	N	NEG	P	NEG	NEG	NEG	N	NR	NEG	4	5
298	3	1	2	1	1	4	MU	2	2	2	0.00	0.00	N	E	N	2.00	Y	NEG	P	NEG	NEG	NEG	N	NR	NEG	4	6
299	1	2	5	2	1	1	MO	3	5	4	2.00	2.00	N	N	N	2.00	N	C	NEG	NEG	NEG	NEG	N	NR	NEG	8	5
300	3	2	3	3	1	1	MO	4	1	4	3.00	3.00	N	E	P	2.00	N	P	P	NEG	NEG	NEG	N	NR	NEG	4	6
301	2	2	3	2	2	1	MO	2	1	4	3.00	3.00	N	E	P	3.00	N	TV	NEG	NEG	NEG	NEG	N	NR	NEG	8	2
302	2	2	1	1	4	2	MO	1	1	4	0.00	0.00	N	N	N	3.00	N	P	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
303	1	1	1	3	3	2	MO	1	1	4	0.00	0.00	N	D	N	1.00	N	TV	NEG	NEG	NEG	NEG	P	NR	NEG	4	2
304	2	1	3	2	2	3	MO	3	3	4	2.00	2.00	N	E	P	2.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	5
305	3	2	5	1	1	1	MO	4	2	4	3.00	3.00	N	N	P	2.00	P	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	5
306	3	2	3	3	3	1	MO	4	3	4	4.00	4.00	N	E	P	2.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	5
307	2	1	2	1	2	1	MU	3	2	1	4.00	4.00	N	E	P	2.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	2	6
308	3	1	3	3	1	1	MO	2	1	4	2.00	2.00	N	N	C	3.00	N	C	C	NEG	NEG	NEG	N	NR	NEG	4	5

SNO	Age	AddressRU	Occupation	Monthlyincome	Educationstatus	Maritalstatus	Numberofpartnermonoormultiple	Marriedsince	Presentingcomplaints	Sexualhistory	Method of Contraception	No. of Children	L/E	PS	Cervix_GS	New_PS1	Vagina_KOH	Vagina_NS	Vegina_GS	GenitalUlcer_TS	GenitalUlcer_GS	GenitalUlcer_LS	CultureforTrichomonasvaginalis	VDRL	HIVab	Spouseassementfollowup	DIAGNOSIS
309	4	1	1	3	4	4	MO	1	10	4	0.00	0.00	N	N	P	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	3
310	2	2	3	2	2	5	MU	2	2	2	1.00	1.00	N	E	P	2.00	N	C	C	NEG	NEG	NEG	N	NR	NEG	4	5
311	2	1	1	1	1	5	MU	2	1	4	0.00	0.00	N	E	P	1.00	N	P	NEG	NEG	NEG	NEG	N	NR	NEG	4	6
312	1	2	2	1	2	2	MU	1	2	1	0.00	0.00	N	E	P	3.00	Y	NEG	Y	NEG	NEG	NEG	N	NR	NEG	4	4
313	2	1	3	2	3	1	MO	1	1	4	1.00	1.00	N	N	P	1.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	3
314	3	2	3	3	3	1	MO	3	2	4	2.00	2.00	N	E	P	3.00	P	P	NEG	NEG	NEG	NEG	N	NR	NEG	4	6
315	1	2	2	1	3	1	MU	1	1	1		6.00	N	N	P	3.00	P	C	C	NEG	NEG	NEG	N	NR	NEG	4	6
316	4	1	1	1	1	1	MO	4	14	4	4.00	4.00	N	N	N	1.00	P	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
317	3	1	3	2	2	1	MO	3	5	4	3.00	3.00	N	E	P	3.00	P	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	6
318	2	2	5	2	3	1	MU	2	2	2	2.00	2.00	N	E	N	3.00	N	NEG	C	NEG	NEG	NEG	N	NR	NEG	4	5
319	3	2	3	2	2	1	MO	2	2	4	3.00	3.00	N	N	P	3.00	Y	C	C	NEG	NEG	NEG	N	NR	NEG	4	5
320	1	1	1	1	1	1	MU	1	4	1	1.00	1.00	N	E	P	1.00	N	P	NEG	NEG	NEG	NEG	N	NR	NEG	2	5
321	2	1	3	2	4	1	MO	2	1	4	2.00	2.00	N	N	N	1.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
322	2	2	3	1	3	1	MO	2	1	4	2.00	2.00	N	N	N	1.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
323	4	2	3	1	1	1	MO	4	2	4	3.00	3.00	N	N	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
324	3	2	3	1	1	1	MU	4	2	2	4.00	4.00	N	N	P	1.00	N	NEG	P	NEG	NEG	NEG	N	NR	NEG	4	2
325	4	2	1	1	1	1	MO	4	2	4	1.00	1.00	N	N	P	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	5
326	3	2	1	1	1	1	MO	3	5	4	2.00	2.00	S	E	P	3.00	N	NEG	P	NEG	NEG	NEG	N	NR	NEG	4	7
327	5	1	1	1	1	1	MO	4	2	4	2.00	2.00	N	E	P	2.00	N	NEG	P	NEG	NEG	NEG	N	NR	NEG	4	5
328	2	1	1	1	1	1	MO	1	1	4	2.00	2.00	N	N	2	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	2
329	5	2	1	1	1	1	MU	4	7	2	3.00	3.00	U	N	N	3.00	N	NEG	NEG	MNG	NEG	NEG	N	NR	NEG	4	8
330	1	2	1	1	1	1	MO	4	1	4	2.00	2.00	N	E	P	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
331	2	2	1	1	1	1	MO	3	1	4	3.00	3.00	N	D	N	1.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	1
332	3	2	3	1	1	1	MO	4	1	4	3.00	3.00	N	N	P	3.00	N	P	P	NEG	NEG	NEG	N	NR	NEG	4	9
333	1	2	1	1	2	1	MO	1	1	4	1.00	1.00	N	N	N	1.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
334	3	1	1	2	3	1	MO	4	1	4	3.00	3.00	N	D	P	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
335	3	2	1	1	2	1	MO	4	1	4	2.00	2.00	N	N	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
336	2	1	3	1	3	1	MO	4	1	4	3.00	3.00	N	N	N	1.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9

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337	2	1	3	1	3	1	MO	4	2	4	3.00	3.00	N	E	P	3.00	N	P	NEG	NEG	NEG	NEG	N	NR	NEG	4	6
338	2	1	1	1	4	1	MO	3	2	4	2.00	2.00	N	D	N	3.00	N	C	C	NEG	NEG	NEG	N	NR	NEG	4	5
339	2	2	3	1	3	1	MO	1	2	4	1.00	1.00	N	N	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
340	2	1	3	2	2	1	MO	4	1	4	3.00	3.00	N	E	N	3.00	N	P	NEG	NEG	NEG	NEG	N	NR	NEG	4	6
341	2	1	3	3	3	1	MO	3	2	4	3.00	3.00	N	N	P	1.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
342	2	1	3	2	2	1	MU	1	2	1	0.00	0.00	N	N	N	3.00	N	C	C	NEG	NEG	NEG	N	NR	NEG	4	3
343	1	2	3	3	3	1	MO	2	9	4	2.00	2.00	N	N	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	2	9
344	3	2	3	3	3	1	MO	3	1	4	2.00	2.00	N	N	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
345	3	1	1	1	1	1	MO	4	1	4	4.00	4.00	N	N	N	3.00	N	C	C	NEG	NEG	NEG	N	NR	NEG	4	5
346	1	2	1	2	3	1	MO	1	2	4	0.00	0.00	N	E	N	1.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	3
347	3	2	3	3	3	1	MU	4	2	1	4.00	4.00	N	E	N	3.00	N	C	C	NEG	NEG	NEG	N	NR	NEG	4	5
348	1	2	2	3	4	2	MU	1	7	1		7.00	U	N	Y	3.00	Y	P	P	MNG	NEG	NEG	N	NR	NEG	5	8
349	3	2	3	2	3	1	MO	3	1	4	2.00	2.00	N	N	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
350	2	2	3	1	3	1	MO	2	1	4	2.00	2.00	N	N	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
351	3	1	3	3	2	1	MO	2	8	4	0.00	0.00	N	N	P	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
352	3	1	3	2	3	1	MU	4	2	1	5.00	5.00	N	E	P	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	6
353	2	1	3	2	2	1	MO	2	1	4	2.00	2.00	N	N	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
354	4	1	1	2	3	1	MO	4	1	4	3.00	3.00	N	E	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	6
355	2	1	3	2	3	1	MO	4	1	4	3.00	3.00	N	N	N	1.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
356	1	1	3	2	3	1	MO	2	2	4	3.00	3.00	N	E	P	1.00	N	P	NEG	NEG	NEG	NEG	N	NR	NEG	4	6
357	3	2	2	2	3	1	MO	4	7	4	3.00	3.00	U	N	P	1.00	N	NEG	NEG	NEG	NEG	NEG	P	NR	NEG	4	2
358	3	2	1	2	1	1	MO	4	1	4	3.00	3.00	N	N	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
359	3	1	3	2	4	5	MO	4	1	4	3.00	3.00	N	E	P	3.00	Y	NEG	Y	NEG	NEG	NEG	N	NR	POS	7	12
360	4	2	3	2	3	1	MO	4	1	4	4.00	4.00	N	N	P	3.00	N	NEG	P	NEG	NEG	NEG	N	NR	NEG	4	9
361	2	2	3	2	1	1	MO	3	1	4	1.00	1.00	N	E	P	3.00	N	C	P	NEG	NEG	NEG	N	NR	NEG	4	5
362	1	1	3	2	3	1	MO	2	2	4	2.00	2.00	N	N	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
363	3	2	3	2	4	1	MO	4	1	4	2.00	2.00	N	N	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
364	3	2	3	3	4	1	MO	4	11	4	3.00	3.00	G	N	P	3.00	Y	NEG	P	NEG	NEG	NEG	N	NR	NEG	4	3

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365	3	1	1	2	3	1	MO	4	2	4	2.00	2.00	N	E	N	3.00	N	NEG	P	NEG	NEG	NEG	N	NR	NEG	4	6
366	2	2	1	2	2	1	MO	1	4	4	1.00	1.00	N	N	N	1.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
367	3	1	3	1	3	1	MO	4	11	4	3.00	3.00	N	E	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	6
368	3	2	1	1	1	1	MO	4	1	4	0.00	0.00	N	D	N	3.00	N	NEG	P	NEG	NEG	NEG	N	NR	NEG	4	9
369	2	2	3	1	2	1	MO	3	11	4	2.00	2.00	N	N	N	3.00	N	NEG	P	NEG	NEG	NEG	N	NR	NEG	4	9
370	2	2	5	1	2	1	MO	3	1	4	1.00	1.00	N	N	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	5
371	2	1	3	3	3	1	MO	4	2	4	3.00	3.00	N	E	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
372	1	2	2	3	3	1	MO	1	2	1		7.00	N	D	C	3.00	N	C	P	NEG	NEG	NEG	N	NR	NEG	4	5
373	3	2	2	2	2	1	MO	4	1	4	4.00	4.00	N	N	N	1.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	5
374	5	1	3	1	3	1	MO	4	2	4	4.00	4.00	N	G	P	2.00	N	NEG	P	NEG	NEG	NEG	N	NR	NEG	4	2
375	1	2	1	1	3	1	MO	1	8	4	0.00	0.00	N	N	N	3.00	N	NEG	P	NEG	NEG	NEG	N	NR	NEG	4	5
376	1	2	3	2	3	1	MO	1	2	4	0.00	0.00	N	N	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	3
377	3	2	3	2	4	5	MO	4	11	4	3.00	3.00	N	N	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	3
378	2	1	3	2	4	1	MO	3	2	4	2.00	2.00	N	N	P	3.00	N	NEG	P	NEG	NEG	NEG	N	NR	POS	4	3
379	2	1	1	2	4	1	MO	3	5	4	2.00	2.00	N	E	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	6
380	2	2	3	2	3	1	MO	3	9	4	2.00	2.00	N	N	P	2.00	Y	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	4
381	3	2	1	2	1	1	MO	4	1	4	3.00	3.00	N	N	P	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
382	2	2	5	2	3	1	MO	4	5	4	1.00	1.00	N	N	N	1.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
383	1	1	5	2	3	1	MO	2	5	4	3.00	3.00	N	N	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
384	1	2	3	3	3	1	MO	1	2	4	3.00	3.00	N	N	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
385	2	1	3	1	3	1	MO	3	1	4	2.00	2.00	N	N	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
386	4	2	3	2	4	1	MO	4	11	4	1.00	1.00	N	N	N	2.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
387	4	2	3	2	4	1	MO	4	1	4	3.00	3.00	N	N	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
388	2	1	1	1	1	1	MO	3	1	4	0.00	0.00	N	N	N	1.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
389	1	2	4	3	4	1	MO	1	5	4	0.00	0.00	S	N	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
390	2	1	3	2	4	1	MO	4	2	4	2.00	2.00	N	E	P	3.00	N	C	C	NEG	NEG	NEG	N	NR	NEG	4	5
391	1	1	1	1	1	1	MO	2	3	4	1.00	1.00	N	E	C	3.00	N	NEG	C	NEG	NEG	NEG	N	NR	NEG	4	6
392	3	2	3	2	4	5	MO	4	2	4	2.00	2.00	N	D	N	2.00	Y	NEG	Y	NEG	NEG	NEG	N	NR	NEG	4	4

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393	2	2	2	3	3	5	MU	1	2	4	3.00	3.00	N	E	N	3.00	N	NEG	P	NEG	NEG	NEG	N	NR	NEG	4	6
394	1	2	2	3	3	2	MU	1	1	1	0.00	0.00	N	N	N	3.00	N	C	NEG	NEG	NEG	NEG	N	NR	NEG	5	5
395	1	2	2	3	3	2	MU	1	1	4		6.00	N	N	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	5	10
396	1	2	2	3	4	2	MU	1	2	1	0.00	0.00	N	N	P	3.00	N	TV	P	NEG	NEG	NEG	P	NR	NEG	5	2
397	1	1	2	2	4	1	MU	1	2	1	2.00	2.00	N	N	N	3.00	N	C	C	NEG	NEG	NEG	N	NR	NEG	6	5
398	1	1	3	2	3	1	MU	2	1	2	0.00	0.00	N	N	P	3.00	N	P	P	NEG	NEG	NEG	N	NR	NEG	6	10
399	2	2	2	2	3	1	MU	4	1	2	2.00	2.00	N	E	P	2.00	N	P	P	NEG	NEG	NEG	N	NR	NEG	4	6
400	1	2	2	2	3	4	MU	2	1	2	1.00	1.00	N	N	N	3.00	Y	C	C	NEG	NEG	NEG	N	NR	NEG	5	5
401	2	2	1	2	3	1	MO	4	11	4	3.00	3.00	N	N	2	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	3
402	2	1	2	3	2	1	MU	2	1	2	2.00	2.00	N	N	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	7	3
403	2	2	2	2	3	1	MU	3	12	1	0.00	0.00	G	E	P	3.00	N	NEG	P	NEG	NEG	NEG	N	NR	NEG	7	12
404	2	2	3	2	3	1	MO	1	1	4	2.00	2.00	N	D	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	3
405	5	2	3	2	2	5	MO	4	1	4	1.00	1.00	N	N	P	3.00	N	P	P	NEG	NEG	NEG	N	NR	NEG	4	9
406	4	2	1	1	1	1	MO	4	2	3	2.00	2.00	N	E	P	1.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	6
407	1	1	1	1	1	1	MO	1	1	4	0.00	0.00	N	N	P	1.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	6
408	4	1	1	1	1	1	MO	4	4	2	4.00	4.00	N	G	P	1.00	Y	NEG	NEG	NEG	NEG	NEG	N	NR	POS	7	12
409	1	2	3	1	4	1	MO	1	2	4	0.00	0.00	N	N	N	1.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
410	4	2	1	1	3	1	MO	4	2	4	3.00	3.00	N	N	N	1.00	N	NEG	Y	NEG	NEG	NEG	N	NR	NEG	4	3
411	2	1	3	2	3	1	MO	2	1	4	3.00	3.00	N	N	P	1.00	N	NEG	P	NEG	NEG	NEG	N	NR	NEG	4	3
412	2	1	1	1	1	1	MO	1	2	4		1.00	N	E	P	1.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	6
413	1	2	1	1	3	1	MO	1	2	4	0.00	0.00	N	N	N	1.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	5
414	1	2	3	2	4	2	MO	1	1	1	0.00	0.00	N	N	N	1.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	5	9
415	2	1	5	1	3	1	MO	3	3	4	3.00	3.00	N	D	N	1.00	Y	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	8	4
416	5	2	5	2	1	1	MO	4	1	4	2.00	2.00	N	E	N	1.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	6
417	2	1	1	1	3	1	MO	2	2	4	3.00	3.00	N	E	N	1.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	6
418	5	2	1	1	1	1	MO	4	1	4	3.00	3.00	N	N	N	1.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
419	2	2	3	3	3	1	MO	1	9	4	0.00	0.00	N	E	N	1.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	1	6
420	2	2	5	3	3	1	MO	1	2	4	2.00	2.00	N	E	N	1.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	2

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421	2	2	5	1	3	1	MO	2	1	4	2.00	2.00	N	N	P	1.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	6
422	3	1	5	2	1	1	MO	4	2	4	2.00	2.00	N	N	P	1.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
423	1	2	1	1	3	1	MO	3	1	4	3.00	3.00	N	E	P	1.00	N	P	P	NEG	NEG	NEG	N	NR	NEG	4	3
424	3	2	5	2	3	1	MO	4	1	4	2.00	2.00	N	N	P	1.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
425	2	1	1	1	1	1	MU	3	13	2	3.00	3.00	N	E	P	1.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	6	10
426	5	2	5	2	3	5	MO	4	1	4	2.00	2.00	N	D	N	1.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
427	3	1	1	1	2	1	MO	4	2	4	3.00	3.00	N	D	P	1.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	3
428	2	2	5	1	1	1	MO	4	1	2	2.00	2.00	N	D	N	1.00	N	C	C	NEG	NEG	NEG	N	NR	NEG	4	5
429	2	1	3	2	3	1	MO	2	2	4	0.00	0.00	N	N	N	1.00	N	P	P	NEG	NEG	NEG	N	NR	POS	7	12
430	3	2	3	2	2	5	MU	4	2	2	1.00	1.00	N	E	N	1.00	N	P	P	NEG	NEG	NEG	N	NR	NEG	4	6
431	5	2	3	2	2	5	MO	4	1	4	2.00	2.00	N	N	N	1.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
432	3	1	3	2	3	1	MO	4	2	4	3.00	3.00	N	E	N	1.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	6
433	4	1	1	1	1	1	MO	4	1	4	5.00	5.00	N	D	P	1.00	N	TV	P	NEG	NEG	NEG	N	NR	NEG	4	5
434	2	1	5	3	2	1	MO	4	4	4	3.00	3.00	N	N	N	1.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	1
435	4	2	3	1	1	1	MO	4	1	4	2.00	2.00	N	E	N	1.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
436	2	2	5	1	1	1	MO	1	2	4	2.00	2.00	N	N	P	1.00	P	NEG	P	NEG	NEG	NEG	N	NR	NEG	4	3
437	1	2	1	1	3	1	MO	2	2	4	2.00	2.00	N	N	P	1.00	Y	Y	Y	NEG	NEG	NEG	N	NR	NEG	4	4
438	3	2	3	1	1	1	MO	4	9	4	3.00	3.00	N	N	N	1.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	6	10
439	4	2	2	1	1	1	MO	4	2	2	3.00	3.00	N	N	N	1.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	POS	4	12
440	3	1	3	1	2	1	MU	4	2	4	3.00	3.00	N	N	P	1.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	3
441	4	1	1	1	1	1	MO	4	1	2	3.00	3.00	N	N	N	1.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	6
442	3	2	5	2	3	1	MO	4	1	4	2.00	2.00	N	N	N	1.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
443	1	2	3	3	3	1	MO	1	1	4	0.00	0.00	N	N	N	1.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
444	2	2	3	1	2	1	MO	2	2	4	3.00	3.00	N	N	N	1.00	N	NEG	P	NEG	NEG	NEG	N	NR	NEG	4	3
445	2	2	2	2	3	1	MO	3	1	4	3.00	3.00	N	E	N	1.00	Y	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	6
446	2	1	3	2	3	1	MO	3	2	4	4.00	4.00	N	N	N	1.00	Y	NEG	Y	NEG	NEG	NEG	N	NR	NEG	4	4
447	4	2	1	1	1	1	MO	4	2	3	2.00	2.00	N	E	P	1.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	6
448	5	2	1	1	1	1	MU	4	7	2	3.00	3.00	U	N	N	3.00	N	NEG	NEG	MNG	NEG	NEG	N	NR	NEG	4	8

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449	3	1	1	1	3	1	MO	3	1	4	3.00	3.00	N	N	P	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	3
450	3	2	3	1	3	1	MO	4	1	4	2.00	2.00	N	D	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	3
451	3	2	3	1	3	1	MO	4	1	4	2.00	2.00	N	D	N	1.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
452	2	2	1	2	3	1	MO	3	2	4	3.00	3.00	N	E	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	6
453	1	2	3	2	4	2	MO	1	1	1	0.00	0.00	N	N	N	1.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	5	9
454	2	2	1	2	1	2	MU	1	2	4	2.00	2.00	N	E	P	2.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	6
455	4	1	1	1	1	1	MO	4	2	4	1.00	1.00	N	D	N	3.00	N	C	C	NEG	NEG	NEG	N	NR	NEG	4	5
456	2	1	3	1	3	1	MO	3	1	4	2.00	2.00	N	N	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
457	2	2	3	1	1	2	MO	1	1	4	0.00	0.00	N	N	N	3.00	Y	NEG	Y	NEG	NEG	NEG	N	NR	NEG	4	4
458	4	1	1	1	1	1	MU	4	1	1	4.00	4.00	N	E	P	2.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	13
459	2	1	5	1	2	1	MO	2	2	4	3.00	3.00	N	D	P	3.00	P	NEG	P	NEG	NEG	NEG	N	NR	NEG	4	6
460	4	1	1	2	3	1	MO	4	1	4	3.00	3.00	N	E	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	6
461	2	2	1	1	1	1	MO	3	1	4	3.00	3.00	N	D	N	1.00	N	NEG	NEG	NEG	NEG	NEG	P	NR	NEG	4	1
462	3	2	1	1	1	1	MO	3	5	4	2.00	2.00	S	E	P	3.00	N	NEG	P	NEG	NEG	NEG	N	NR	NEG	4	7
463	2	1	3	2	2	1	MU	1	2	1	0.00	0.00	N	N	N	3.00	N	C	C	NEG	NEG	NEG	N	NR	NEG	4	5
464	1	2	2	3	3	1	MO	1	2	1		7.00	N	D	C	3.00	N	C	P	NEG	NEG	NEG	N	NR	NEG	4	5
465	2	2	3	2	1	1	MO	3	1	4	1.00	1.00	N	E	P	3.00	N	C	P	NEG	NEG	NEG	N	NR	NEG	4	5
466	2	2	3	2	1	2	MO	3	9	4	2.00	2.00	N	N	N	2.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	3
467	3	1	3	1	3	1	MO	4	11	4	3.00	3.00	N	E	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	6
468	1	1	1	1	1	1	MO	2	3	4	1.00	1.00	N	E	C	3.00	N	NEG	C	NEG	NEG	NEG	N	NR	NEG	4	6
469	2	1	3	2	2	1	MO	4	1	4	3.00	3.00	N	E	N	3.00	N	P	NEG	NEG	NEG	NEG	N	NR	NEG	4	6
470	1	2	1	1	2	1	MO	1	1	4	1.00	1.00	N	N	N	1.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
471	2	1	1	2	3	1	MO	3	2	1	2.00	2.00	N	N	N	1.00	N	TV	NEG	NEG	NEG	NEG	N	NR	NEG	4	2
472	3	1	3	2	4	5	MO	4	1	4	3.00	3.00	N	E	P	3.00	Y	NEG	Y	NEG	NEG	NEG	N	NR	POS	7	2
473	2	2	1	1	1	1	MO	3	1	4	3.00	3.00	N	D	N	1.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	1
474	1	2	2	3	4	2	MU	1	2	1	0.00	0.00	N	N	P	3.00	N	TV	P	NEG	NEG	NEG	N	NR	NEG	5	2
475	3	2	1	1	1	1	MO	3	5	4	2.00	2.00	S	E	P	3.00	N	NEG	P	NEG	NEG	NEG	P	NR	NEG	4	7
476	2	1	3	3	3	1	MO	3	2	4	3.00	3.00	N	N	P	1.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9

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477	2	2	1	2	2	1	MO	1	4	4	1.00	1.00	N	N	N	1.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
478	2	1	3	2	3	1	MO	4	1	4	3.00	3.00	N	N	N	1.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
479	2	1	3	1	3	1	MO	4	2	4	3.00	3.00	N	E	P	3.00	N	P	NEG	NEG	NEG	NEG	N	NR	NEG	4	6
480	4	1	1	3	4	4	MO	1	10	4	0.00	0.00	N	N	P	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	3
481	3	2	3	2	4	5	MO	4	2	4	2.00	2.00	N	D	N	2.00	Y	NEG	Y	NEG	NEG	NEG	N	NR	NEG	4	4
482	2	2	5	3	3	1	MO	1	2	4	2.00	2.00	N	E	N	1.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	2
483	4	1	1	2	3	1	MO	4	1	4	3.00	3.00	N	E	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	6
484	3	2	3	1	1	1	MO	4	1	4	3.00	3.00	N	N	P	3.00	N	P	P	NEG	NEG	NEG	N	NR	NEG	4	9
485	1	2	1	1	1	1	MO	4	1	4	2.00	2.00	N	E	P	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
486	3	2	3	2	4	1	MO	4	1	4	2.00	2.00	N	N	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
487	3	2	2	2	3	1	MU	3	1	4	3.00	3.00	N	E	P	3.00	N	NEG	NEG	NEG	NEG	MNG	N	NR	NEG	4	8
488	3	1	2	3	3	1	MU	3	12	1	3.00	3.00	G	N	N	2.00	N	NEG	P	NEG	NEG	NEG	N	NR	NEG	4	6
489	3	2	5	2	1	1	MO	4	1	4	3.00	3.00	N	E	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	6
490	3	2	1	2	1	1	MO	4	1	4	3.00	3.00	N	N	P	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
491	2	1	3	2	2	1	MU	1	2	1	0.00	0.00	N	N	N	3.00	N	C	C	NEG	NEG	NEG	N	NR	NEG	4	5
492	2	1	1	2	4	1	MO	3	5	4	2.00	2.00	N	E	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	6
493	3	2	3	3	3	1	MO	3	1	4	2.00	2.00	N	N	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
494	1	2	5	2	2	1	MO	2	1	4	2.00	2.00	N	N	P	2.00	Y	Y	Y	NEG	NEG	NEG	N	NR	NEG	4	4
495	2	2	2	3	3	5	MU	1	2	4	3.00	3.00	N	E	N	3.00	N	NEG	P	NEG	NEG	NEG	N	NR	NEG	4	6
496	3	2	1	2	1	1	MO	4	1	4	3.00	3.00	N	N	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	9
497	2	2	1	2	3	1	MO	3	2	4	3.00	3.00	N	E	N	3.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	6
498	1	2	2	3	4	2	MU	1	2	1	0.00	0.00	N	N	P	3.00	N	TV	P	NEG	NEG	NEG	N	NR	NEG	5	TV
499	1	2	1	1	3	1	MO	2	2	4	2.00	2.00	N	N	P	1.00	Y	Y	Y	NEG	NEG	NEG	N	NR	NEG	4	4
500	3	1	5	3	1	1	MO	4	1	4	1.00	1.00	N	E	N	2.00	N	NEG	NEG	NEG	NEG	NEG	N	NR	NEG	4	6

MASTER CHART KEY WORDS

Age(C)	
1.	18-25
2.	26-35
3.	36-45
4.	>45
Address(D)	
1.	Rural
2.	Urban
Occupation(E)	
1.	Coolie
2.	CSW
3.	House Wife
4.	Others
Monthly Income(F)	
1.	<5000
2.	5001-10000
3.	>10000
Educational Status(G)	
1.	Illiterate
2.	$<5^{th}$ Std
3.	6^{th} -12^{th}
4.	Graduate
5.	Professional
Marital Status(H)	
1.	Married
2.	Unmarried
3.	Separated
4.	Divorced
5.	Widow
No. of Partners(I)	
Mo	Mono
MU	Multiple
Married Since(J)	
1.	< 5years
2.	5-10 years
3.	10-15 years
4.	> 15 years
Presenting Complaints(K)	
1.	Asymptomatic
2.	Vaginal Discharge
3.	Dysuria
4.	Pain Abdomen
5.	Others (Bartholin's cyst)
6.	Post Menopausal Bleeding
7.	Genital Ulceration
8.	Infertility
9.	Contact Tracing
10.	LBA
11.	Itching Genitalia
12.	Warty Growth
13.	TPHA +ve
14.	Dysparunia
Sexual History(L)	
1.	Pre-marital contact
2.	Extra marital contact
3.	Previous venereal disease
Menstrual History(M)	
1.	R-Regular/ IR-Irregular
2.	Abnormal blood loss
3.	Post Coital bleeding
4.	Menopause
Obstetric History(N)	
A	No. of Children (1, 2, 3, 4)
B	OC Pills
C	Copper T
D	Barrier Method
E	Permanent Sterilisation
F	No contraception
Personal History(O)	
1.	IV Drug Abuse
2.	Alcoholism
3.	Smoking
4.	Nothing Relevant
Local Examination(P)	
U	Ulcer
G	Growth
S	Swelling
Per vaginal Examination (Discharge)(Q)	
1.	Curdy white
2.	Greenish frothy
3.	Profuse Homogenous
4.	Normal
5.	Bleeding PV

Per speculum Examination(R)	
E	Erosion
D	Discharge
G	Growth
Cervical motion Tenderness(S)	
Y	Yes
N	No
CERVIX, VAGINA GS-Gram stain-(T),(X)	
P	Pus Cell
C	Clue Cell
Y	Yeast (candida)
2	Secondary Organisms
PS-Pap smear-(U)	
1.	Normal Pap-N
2.	Inflammatory smear-IS IS (N) – Neutrophils IS (MN) - Monocytes, Neutrophils IS (P) - Polymorphs
3.	Atypical squamous cells – AT
4.	Low grade squamous intra epithelial lesion-LSIL
5.	High grade squamous intra epithelial lesion-HSIL
6.	Atypical squamous cell of undetermined significance-ASCUS
7.	Carcinoma-CA
8.	Inadequate smear-IN
9.	Parabasal cells-P
	Vagina
KOH- Potassium Hydroxide (V)	
CL	Clue Cell
Y	Yeast Cell
NS- Normal Saline (W)	
C	Clue Cells
TV	Trichonomas vaginalis
Genital Ulcer	
DF	Dark Field(Y)
TZ	Tzank Smear(Z)
GS	Gram Stain(AA)
LS	Leishman Stain(AB)

Gonococcol culture(AC)	
P	Positive
N	Negative
Culture for TV (AD)	
P	Positive
N	Negative
VDRL(AE)	
P	Positive
N	Negative
HIV ab (AF)	
P	Positive
N	Negative
Spouse Assessment (AG)	
1.	Genital Ulcer
2.	Genital / Urethral Discharge
3.	Bubo
4.	Not done
5.	Not applicable
6.	Syphillis
7.	HIV
8.	Balanoposthitis
9.	Genital Wart
Hep.B & Hep.C (AH)	
P	Positive
N	Negative
DIAGNOSIS (AI)	
1.	Lower abdominal pain
2.	Trichomonas vaginals
3.	VD (Vaginal discharge)
4.	Candidiasis
5.	Bacterial vaginosis
6.	Cervicitis
7.	Bartholin's Cyst
8.	Herpes Simplex
9.	NV (Non Venereal)
10.	Syphilis
11.	Genital warts
12.	HIV
13.	Others